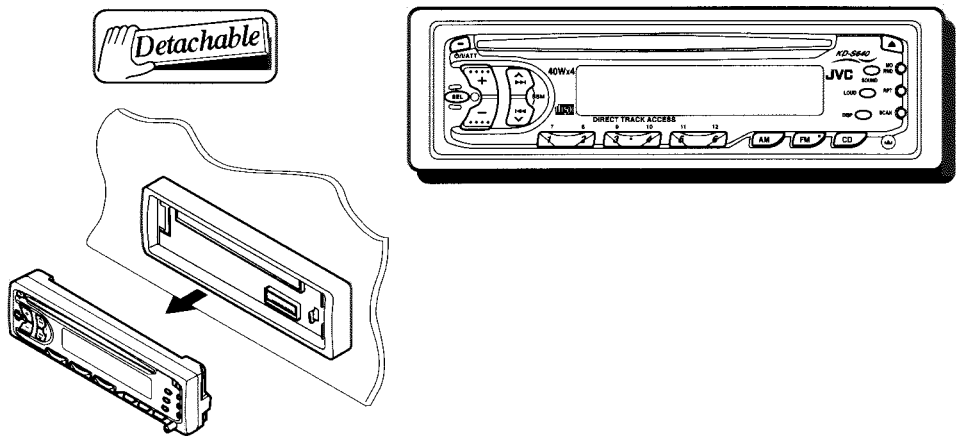
KD-S640

JVC

SERVICE MANUAL

CD RECEIVER

KD-S640



COMPACT disc DIGITAL AUDIO

Area Suffix

J ··· Northern America

Contents

No.49487
NOV. 1998

Safety Precaution

⚠ *CAUTION* **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs when preforming repairs of this system.**

⚠ *CAUTION* **Please use enough caution to avoid direct exposure to the beam or touch it in case of an adjustment or operation check.**

JVC

CD RECEIVER KD-S640

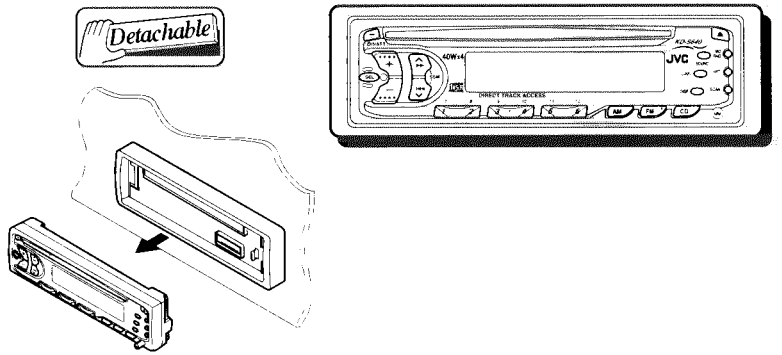
ENGLISH

RECEPTOR CON CD KD-S640

ESPAÑOL

RECEPTEUR CD KD-S640

FRANÇAIS



For installation and connections, refer to the separate manual.
Para la instalación y las conexiones, refiérase al manual separado.
Pour l'installation et les raccordements, se référer au manuel séparé.

COMPACT disc DIGITAL AUDIO

INSTRUCTIONS

MANUAL DE INSTRUCCIONES
MANUEL D'INSTRUCTIONS

For customer Use:

Enter below the Model No. and Serial No. which are located on the top or bottom of the cabinet. Retain this information for future reference.

Model No. _____

Serial No. _____

FSUN3069-631
[J]

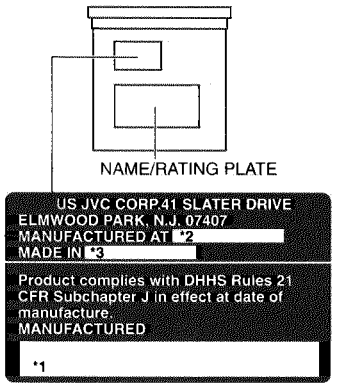
INFORMATION (For USA)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

Identification and Certification labels

Bottom of the main unit



Notes:

**1 The date of manufacture.*
**2 The ID code of manufacturing plant.*
**3 Marking of country origin.*

IMPORTANT FOR LASER PRODUCTS (For USA only)

Precautions:

1. CLASS 1 LASER PRODUCT
2. **DANGER:** Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION:** Do not open the top cover. There are no user-serviceable parts inside. Leave all servicing to qualified service personnel.
4. **CAUTION:** This CD player uses invisible laser radiation, however, is equipped with safety switches to prevent radiation emission when unloading CDs. It is dangerous to defeat the safety switches.
5. **CAUTION:** Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

BEFORE USE

**** For safety....***

- *Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.*
- *Stop the car before performing any complicated operations.*

****Temperature inside the car....***

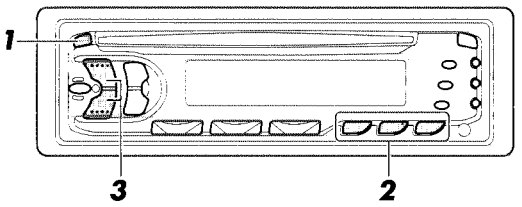
If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.

Thank you for purchasing a JVC product. Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

ENGLISH

CONTENTS

BASIC OPERATIONS



Note:
When you use this unit for the first time, set the built-in clock correctly, see page 16.

1

Turn on the power.

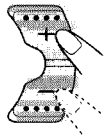
Note on One-Touch Operation:
When you select a source in step 2 below, the power automatically comes on. You do not have to press this button to turn on the power.

2

Select the source.

To operate the tuner, see pages 5 – 9.
To operate the CD player, see pages 10 – 12.

3



Adjust the volume.

Volume level indicator

Volume level appears.

4

Adjust the sound as you want (see pages 13 – 15).

To drop the volume in a moment

Press ⏻/I/ATT briefly while listening to any source. "ATT" starts flashing on the display, and the volume level will drop in a moment.
To resume the previous volume level, press the button briefly again.

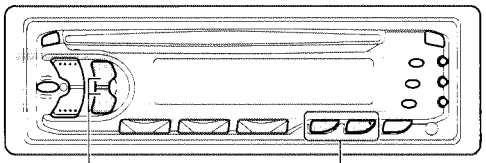
To turn off the power

Press ⏻/I/ATT for more than 1 second.

RADIO OPERATIONS

ENGLISH

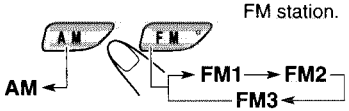
Listening to the radio



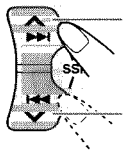
1

Select the band (FM1, FM2, FM3 or AM).

You can select any one of FM1, FM2, and FM3 to listen to an FM station.



2



To search stations of higher frequencies.

To search stations of lower frequencies.

Start searching a station.

When a station is received, searching stops.

To stop searching before a station is received, press the same button you have pressed for searching.

To tune in a particular frequency without searching:

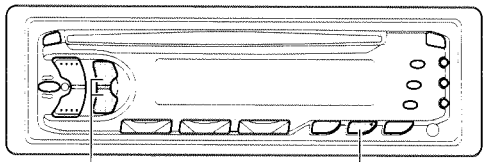
1 Press FM or AM to select the band.
2 Press and hold ▶▶| ∧ or |◀◀ ∨ until "M" starts flashing on the display.
Now you can manually change the frequency while "M" is flashing.
3 Press ▶▶| ∧ or |◀◀ ∨ repeatedly until the frequency you want is reached.
• If you hold down the button, the frequency keeps changing until you release the button.

Storing stations in memory

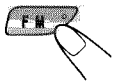
You can use one of the following two methods to store broadcasting stations in memory.
• Automatic preset of FM stations: SSM (Strong-station Sequential Memory)
• Manual preset of both FM and AM stations

FM station automatic preset: SSM

You can preset 6 local FM stations in each FM band (FM1, FM2, and FM3).



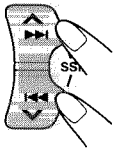
1



→ FM1 → FM2 → FM3

Select the FM band number (FM1, FM2 or FM3) you want to store FM stations into.

2



Press and hold the both buttons for more than 2 seconds.

"SSM" appears, then disappears when automatic preset is over.

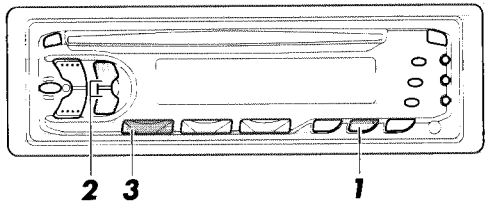
Local FM stations with the strongest signals are searched and stored automatically in the band number you have selected (FM1, FM2 or FM3). These stations are preset in the number buttons — No. 1 (lowest frequency) to No. 6 (highest frequency).
When automatic preset is over, the station stored in number button 1 will be automatically tuned in.

ENGLISH

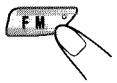
Manual preset

You can preset up to 6 stations in each band (FM1, FM2, FM3 and AM) manually.

EXAMPLE: Storing an FM station of 88.3 MHz into the preset number 1 of the FM1 band

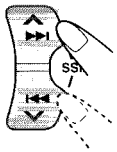


1



Select the FM1 band.

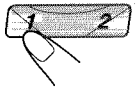
2



Tune into a station of 88.3 MHz.

See page 5 to tune into a station.

3



Press and hold the button for more than 2 seconds.

Preset number "1" starts flashing for a while.

4

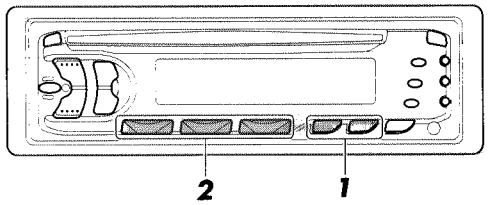
Repeat the above procedure to store other stations into other preset numbers.

Notes:

- *A previously preset station is erased when a new station is stored in the same preset number.*
- *Preset stations are erased when the power supply to the memory circuit is interrupted (for example, during battery replacement). If this occurs, preset the stations again.*

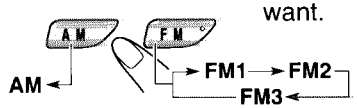
Tuning into a preset station

You can easily tune into a preset station.
Remember that you must store stations first. If you have not stored them yet, see pages 6 and 7.

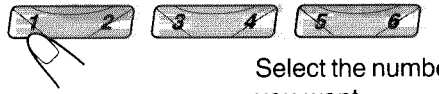


1

Select the band (FM1, FM2, FM3 or AM) you want.

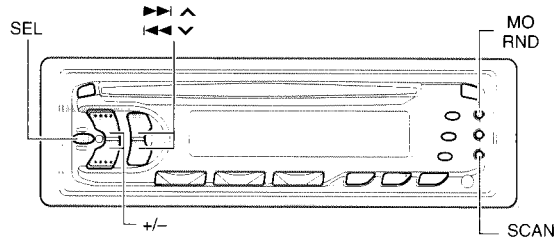


2



Select the number (1 – 6) for the preset station you want.

Other convenient tuner functions



Scanning broadcast stations

When you press SCAN while listening to the radio, station scanning starts. Each time a broadcast is tuned in, scanning stops for about 5 seconds (tuned frequency number flashes on the display), and you can check what program is now being broadcasted.

If you want to listen to that program, press the same button again to stop scanning.

Selecting FM reception sound

When an FM stereo broadcast is hard to receive:

Press MO RND (mono/random) while listening to an FM stereo broadcast. The sound you hear becomes monaural but reception will be improved.

Lights up when receiving an FM broadcast in stereo.

To restore the stereo effect, press the same button again.

Changing the AM/FM channel intervals

When using this unit in an area other than North or South America:

When this unit is shipped from the factory, the channel intervals are set to 10 kHz for AM and 200 kHz for FM. You can change the channel intervals by following the procedure below.

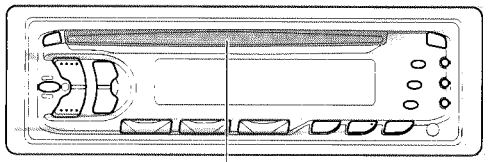
1 Press SEL (select) for more than 2 seconds.
"CLOCK H," "CLOCK M" or "AREA" appears on the display.
2 If "AREA" does not appear, press ▶▶| ∧ or |◀◀ ∨ until it appears.
3 Press +.
"AREA EU" appears and the channel intervals are set to 9 kHz for AM and 50 kHz (for manual tuning) / 100 kHz (for searching) for FM.

To reset to the factory setting, follow the above step 1 and 2, then press – in step 3 ("AREA US" appears on the display.)

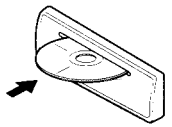
AREA EU: Select this when used in an area other than North and South America.
AREA US: Select this when used in North or South America.

CD OPERATIONS

Playing a CD



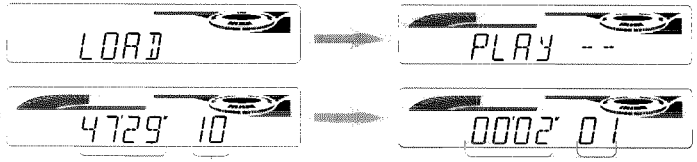
1



Insert a disc into the loading slot.

The unit turns on, draws a CD and starts playback automatically.

- When a CD is inserted upside down, "EJECT" appears on the display and the CD automatically ejects.



Total playing time of the inserted disc | Total track number of the inserted disc | Elapsed playing time | Current track

Note on One-Touch Operation:
When a CD is already in the loading slot, pressing CD turns on the unit and starts playback automatically.

CAUTION on Volume Setting
CDs produces very little noise compared with other sources. If the volume level is adjusted for the tuner, for example, the speakers may be damaged by the sudden increase in the output level. Therefore, lower the volume before playing a CD and adjust it as required during playback

To stop play and eject the CD

Press ⏏.

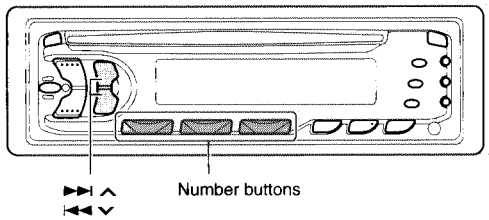
CD play stops and the CD automatically ejects from the loading slot. The source changes to the tuner (you will hear the last received station).

If you change the source to AM/FM, the CD play also stops (without ejecting the CD this time).

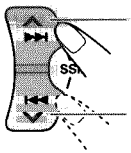
- *If the ejected disc is not removed for about 15 seconds, the disc is automatically inserted again into the loading slot to protect it from dust. (CD play will not start this time.)*
- *You can eject the CD when the unit is turned off.*

ENGLISH

Locating a track or a particular portion on a CD



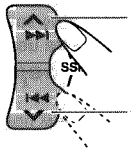
To fast forward or reverse the track



Press and hold ▶▶| ^, while playing a CD, to fast forward the track.

Press and hold |◀◀ v, while playing a CD, to reverse the track.

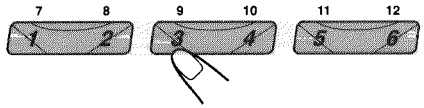
To go to the next track or the previous track



Press ▶▶| ^ briefly, while playing a CD, to go ahead to the beginning of the next track. Each time you press the button consecutively, the beginning of the next track is located and played back.

Press |◀◀ v briefly, while playing a CD, to go back to the beginning of the current track. Each time you press the button consecutively, the beginning of the previous track is located and played back.

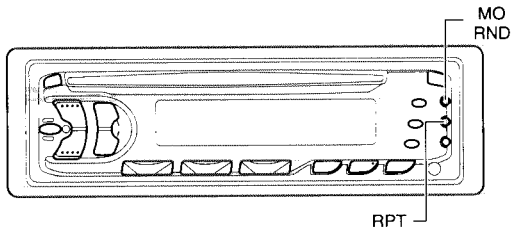
To go to a particular track directly



Press the number button corresponding to the track number to start its playback.

- To select a track number from 1 – 6:
  Press 1 (7) – 6 (12) briefly.
- To select a track number from 7 – 12:
  Press and hold 1 (7) – 6 (12) for more than 1 second.

Selecting CD playback modes



To play back tracks at random (Random Play)

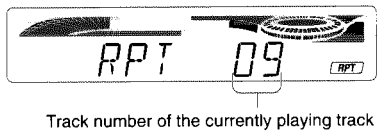
You can play back all tracks on the CD at random.

Each time you press MO RND (Mono/Random) while playing a CD, CD random play mode turns on and off alternatively.
When the random mode is turned on, the RND indicator lights up on the display and a track randomly selected starts playing.

To play back tracks repeatedly (Repeat Play)

You can play back the current track repeatedly.

Each time you press RPT (Repeat) while playing a CD, CD repeat play mode turns on and off alternatively.
When the repeat mode is turned on, the RPT indicator lights up on the display.



Track number of the currently playing track

Other convenient CD functions

Prohibiting CD ejection

You can prohibit the CD ejection and can "lock" a CD in the loading slot.
Press and hold CD and ⏏ for more than 2 seconds. "EJECT" flashes on the display for about 5 seconds, and the CD is "locked."
To cancel the prohibition and "unlock" the CD, press and hold CD and ⏏ for more than 2 seconds again. "EJECT" appears on the display, and the CD ejects from the loading slot.

SOUND ADJUSTMENTS

ENGLISH

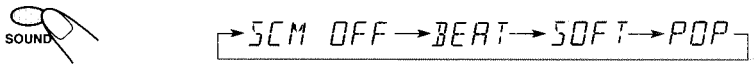
Turning on/off the loudness function

The human ear is less sensitive to low and high frequencies at low volumes.
The loudness function can boost these frequencies to produce well-balanced sound at low volume level.
Each time you press LOUD, the loudness function turns on and off alternatively.

Selecting preset sound modes

You can select a preset sound adjustment suitable to the music genre:

Each time you press SOUND, the sound mode changes as follows.



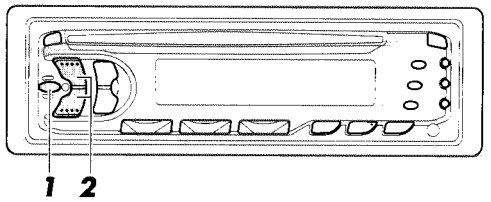
Indication	For:	Preset values		
		Bass	Treble	Loudness
SCM OFF	(Flat sound)	00	00	On
BEAT	Rock or disco music	+2	00	On
SOFT	Quiet background music	+1	–3	Off
POP	Light music	+4	+1	Off

Notes:

- *You can adjust the preset sound mode to your preference, and store in memory. If you want to adjust and store your original sound mode, see "Storing your own sound adjustments" on page 15.*
- *To adjust only the bass and treble reinforcement levels to your preference, see "Adjusting the sound" on page 14.*

Adjusting the sound

You can adjust the treble/bass sound and the speaker balance.



1

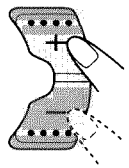
Select the item you want to adjust.

Indication	To do:	Range
BAS (bass)	Adjust the bass	–6 (min.) — +6 (max.)
TRE (treble)	Adjust the treble	–6 (min.) — +6 (max.)
FAD (Fader)*	Adjust the front and rear speaker balance	R6 (rear only) — F6 (front only)
BAL (Balance)	Adjust the left and right speaker balance	L6 (left only) — R6 (right only)
VOL (Volume)	Adjust the volume	00 (min.) — 50 (max.)

Note:

* *If you are using a two-speaker system, set the fader level to "00" (center).*

2



Adjust the level.

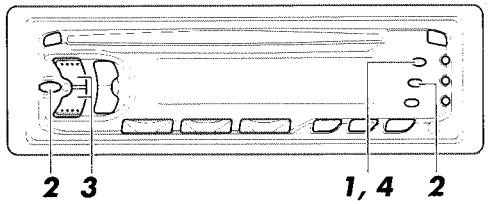
Note:

Normally the + and – buttons work as the volume control buttons. So you do not have to select "VOL" to adjust the volume level.

ENGLISH

Storing your own sound adjustments

You can adjust the sound modes (BEAT, SOFT, POP: see page 13) as you like and store your own adjustments in memory.



1

Call up the sound mode you want to adjust.
See page 13 for details.

Within 5 seconds

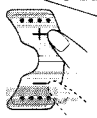
2

To adjust the bass or treble sound level
Select "BAS" or "TRE."

To turn on or off the loudness function
Each time you press LOUD, the loudness function turns on and off alternatively. (→ go to step 4)

Within 5 seconds

3



Adjust the bass or treble level.
See page 14 for details.

Within 5 seconds

4

Press and hold SOUND until the sound mode you have selected in step 1 flashes on the display.
Your setting is stored in memory.

5

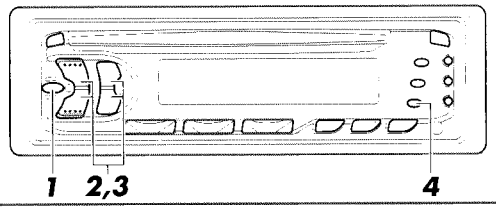
Repeat the same procedure to store other settings.

To reset to the factory settings

Repeat the same procedure and reassign the preset values listed in the table on page 13.

OTHER MAIN FUNCTIONS

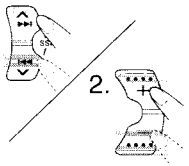
Setting the clock



1

Press and hold the button for more than 2 seconds.
"CLOCK H," "CLOCK M" or "AREA" appears on the display.

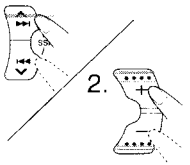
2



Set the hour.
1. Select "CLOCK H" if not shown on the display.

2. Adjust the hour.

3



Set the minute.
1. Select "CLOCK M."

2. Adjust the minute.

4

Start the clock.

To check the current clock time (changing the display mode)

Press DISP repeatedly. Each time you press the button, the display mode changes as follows.

During tuner operation:	During CD operation:
Frequency ⟷ Clock	Elapsed playing time ⟷ Clock

- If the unit is not in use when you press DISP, the power turns on, the clock time is shown for 5 seconds, then the power turns off.

Detaching the control panel

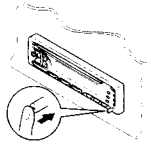
ENGLISH

You can detach the control panel when leaving the car.
When detaching or attaching the control panel, be careful not to damage the connectors on the back of the control panel and on the panel holder.

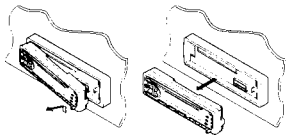
How to detach the control panel

Before detaching the control panel, be sure to turn off the power.

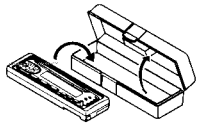
1 Unlock the control panel.



2 Lift and pull the control panel out of the unit.

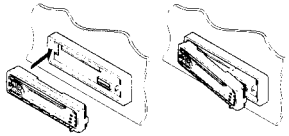


3 Put the detached control panel into the case provided.

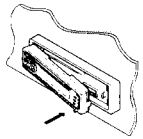


How to attach the control panel

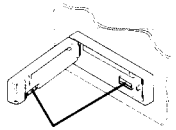
1 Insert the left side of the control panel into the groove on the panel holder.



2 Press the right side of the control panel to fix it to the panel holder.



Note on cleaning the connectors:
If you frequently detach the control panel, the connectors will deteriorate.
To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.



Connectors

MAINTENANCE

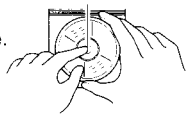
Handling CDs

This unit has been designed only to reproduce the CDs bearing the COMPACT disc DIGITAL AUDIO mark.
Other discs cannot be played back.

How to handle CDs

When removing a CD from its case, press down the center holder of the case and lift the CD out, holding it by the edges.
- Always hold the CD by the edges. Do not touch its recording surface.

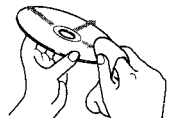
Center holder



When storing a CD into its case, gently insert the CD around the center holder (with the printed surface facing up).
- Make sure to store CDs into the cases after use.

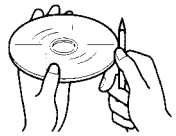
To keep CDs clean

A dirty CD may not play correctly. If a CD does becomes dirty, wipe it with a soft cloth in a straight line from center to edge.



To play new CDs

New CDs may have some rough spots around the inner and outer edges. If such a CD is used, this unit may reject the CD.
To remove these rough spots, rub the edges with a pencil or ball-point pen, etc.



Moisture condensation

Moisture may condense on the lens inside the CD player in the following cases:
- After starting the heater in the car.
- If it becomes very humid inside the car.

Should this occur, the CD player may malfunction. In this case, eject the CD and leave the unit turned on for a few hours until the moisture evaporates.

CAUTIONS:
- *Do not insert 8cm (3 3/16") CDs (single CDs) into the loading slot. (Such CDs cannot be ejected.)*
- *Do not insert any CD of unusual shape – like a heart or flower; otherwise, it will cause a malfunction.*
- *Do not expose CDs to direct sunlight or any heat source or place them in a place subject to high temperature and humidity. Do not leave them in a car.*
- *Do not use any solvent (for example, conventional record cleaner, spray, thinner, benzine, etc.) to clean CDs.*

About mistracking:
Mistracking may result from driving on extremely rough roads. This does not damage the unit and the CD, but will be annoying.
We recommend that you stop CD play while driving on such rough roads.

TROUBLESHOOTING

ENGLISH

What appears to be trouble is not always serious. Check the following points before calling a service center.

Symptoms	Causes	Remedies
• CD cannot be played back.	CD is inserted upside down.	Insert the CD correctly.
• CD sound is sometimes interrupted.	You are driving on rough roads.	Stop CD play while driving rough roads.
	CD is scratched.	Change the CD.
	Connections are incorrect.	Check the cords and connections.
• "NO DISC" appears on the display.	No CD is in the loading slot.	Insert a CD into the loading slot.
	CD is inserted incorrectly.	Insert it correctly.
• Sound cannot be heard from the speakers.	The volume control is turned to the minimum level.	Adjust it to the optimum level.
	Connections are incorrect.	Check the cords and connections.
• SSM (Strong-station Sequential Memory) automatic preset does not work.	Signals are too weak.	Store stations manually.
• Static noise while listening to the radio.	The antenna is not connected firmly.	Connect the antenna firmly.
• CD can be neither played back nor ejected.	The CD player may function incorrectly.	Press ⏻/I/ATT and ⏏ at the same time for more than 2 seconds. Be careful not to drop CD when it is ejected.
• The unit does not work at all.	The built-in microcomputer may function incorrectly due to noise, etc.	Press ⏻/I/ATT and SEL at the same time for more than 2 seconds to reset the unit. (The clock setting and preset stations stored in memory are erased.)

SPECIFICATIONS

AUDIO AMPLIFIER SECTION

Maximum Power Output:
- Front: 40 watts per channel
- Rear: 40 watts per channel

Continuous Power Output (RMS):
- Front: 15 watts per channel into 4 Ω, 40 to 20,000 Hz at no more than 0.8% total harmonic distortion.
- Rear: 15 watts per channel into 4 Ω, 40 to 20,000 Hz at no more than 0.8% total harmonic distortion.

Load Impedance: 4 Ω (4 to 8 Ω allowance)
Tone Control Range
- Bass: ±10 dB at 100 Hz
- Treble: ±10 dB at 10 kHz

Frequency Response: 40 to 20,000 Hz
Signal-to-Noise Ratio: 70 dB
Line-Out Level/Impedance: 2.0 V/20 kΩ load (full scale)
Output Impedance: 1 kΩ

TUNER SECTION

Frequency Range
FM: 87.5 to 107.9 MHz
(with channel interval set to 200 kHz)
87.5 to 108.0 MHz
(with channel interval set to 50 kHz)
AM: 530 to 1,710 kHz
(with channel interval set to 10 kHz)
531 to 1,602 kHz
(with channel interval set to 9 kHz)

[FM Tuner]
Usable Sensitivity: 11.3 dBf (1.0 μV/75 Ω)
50 dB Quieting Sensitivity:
16.3 dBf (1.8 μV/75 Ω)
Alternate Channel Selectivity (400 kHz):
65 dB
Frequency Response: 40 to 15,000 Hz
Stereo Separation: 35 dB
Capture Ratio: 1.5 dB

[AM Tuner]
Sensitivity: 20 μV
Selectivity: 35 dB

CD PLAYER SECTION

Type: Compact disc player
Signal Detection System: Non-contact optical pickup (semiconductor laser)
Number of channels: 2 channels (stereo)
Frequency Response: 5 to 20,000 Hz
Dynamic Range: 95 dB
Signal-to-Noise Ratio: 97 dB
Wow and Flutter: Less than measurable limit

GENERAL

Power Requirement
Operating Voltage: DC 14.4 volts (11 to 16 volts allowance)
Grounding System: Negative ground
Dimensions (W x H x D)
Installation Size:
182 x 52 x 150 mm
(7-3/16" x 2-1/16" x 5-15/16")
Panel Size: 188 x 58 x 14 mm
(7-7/16" x 2-5/16" x 5/8")
Mass: 1.3 kg (2.9 lbs) (excluding accessories)

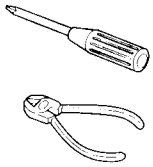
Design and specifications subject to change without notice.

If a kit is necessary for your car, consult your telephone directory for the nearest car audio speciality shop.

KD-S640

Installation/Connection Manual
Manual de instalación/conexión
Manuel d'installation/raccordement

FSUN3069-T631
[J]



0998HISFLEJES
EN, SP, FR

ENGLISH

- This unit is designed to operate only on 12 volts DC, NEGATIVE ground electrical systems.

INSTALLATION (IN-DASH MOUNTING)

- The following illustration shows a typical installation. However, you should make adjustments corresponding to your specific car. If you have any questions or require information regarding installation kits, consult your JVC car audio dealer or a company supplying kits.

1 **Before mounting:** Press ⏏ (Control Panel Release button) to detach the control panel.

2 Remove the trim plate.

3 Remove the sleeve after disengaging the sleeve locks.

1 Stand the unit.

Note: When you stand the unit, be careful not to damage the fuse on the rear.

2 Insert the 2 handles between the unit and the sleeve, as illustrated, to disengage the sleeve locks.

3 Remove the sleeve.

Note: Be sure to keep the handles for future use after installing the unit.

4 Install the sleeve in the dashboard.

* After the sleeve is correctly installed in the dashboard, bend the appropriate tabs to hold the sleeve firmly in place, as illustrated.

5 Fix the mounting bolt to the rear of the unit's body and place the rubber cushion over the end of the bolt.

6 Do the required electrical connections explained on the back of this instructions.

7 Slide the unit into the sleeve until it is locked.

8 Attach the trim plate.

9 Attach the control panel.

ESPAÑOL

- Esta unidad está diseñada para funcionar con 12 voltios de CC, con sistemas eléctricos de masa NEGATIVA solamente.

INSTALACION (MONTAJE EN EL TABLERO DE INSTRUMENTOS)

- La siguiente ilustración muestra una instalación típica. Sin embargo usted deberá efectuar los ajustes correspondientes a su automóvil. Si tiene alguna pregunta o necesita información acerca de las herramientas para instalación, consulte con su concesionario de JVC de equipos de audio para automóviles o a una compañía que suministra tales herramientas.

1 **Antes de instalar:** Presione ⏏ (botón de liberación del panel de control) para desmontar el panel de control.

2 Retire la placa de guarnición.

3 Retire la manga después de desenganchar los retenes de la manga.

1 Ponga la unidad vertical.

Nota: Al poner la unidad vertical, tenga cuidado de no dañar el fusible provisto en la parte posterior.

2 Inserte las dos asas entre la unidad y la manga tal como en la ilustración y desenganche los retenes de la manga.

3 Retire la manga.

Nota: Después de instalar la unidad, asegúrese de guardar las asas para uso futuro.

4 Instale la cubierta en el tablero de instrumentos.

* Después de que la manga esté correctamente instalada en el tablero de instrumentos, doble las lengüetas correspondientes para sostener la manga firmemente en su lugar, tal como se muestra.

5 Fixe el perno de montaje ou la parte trasera del cuerpo de la unidad y coloque el cojín de goma sobre el extremo del perno.

6 Realice las conexiones eléctricas requeridas en base a las explicaciones que figuran en la parte de atrás de estas instrucciones.

7 Deslice la unidad dentro de la manga hasta que quede trabada.

8 Coloque la placa de guarnición.

9 Coloque el panel de control.

FRANÇAIS

- *Cet appareil est conçu pour fonctionner sur des sources de courant continu de 12 volts à masse NEGATIVE seulement.*

INSTALLATION (MONTAGE DANS LE TABLEAU DE BORD)

- *L'illustration suivante est un exemple d'installation typique. Cependant, vous devez faire les ajustements correspondant à votre voiture particulière. Si vous avez des questions ou avez besoin d'information sur des kits d'installation, consulter votre revendeur d'autoradios JVC ou une compagnie d'approvisionnement.*

1 **Avant le montage:** *Appuyer sur ⏏ (touche de libération du panneau de commande) pour détacher le panneau de commande.*

2 *Retirer la plaque d'assemblage.*

3 *Libérer les verrous du manchon et retirer le manchon.*

1 *Poser l'appareil à la verticale.*

Remarque: *Lorsque vous mettez l'appareil à la verticale, faire attention de ne pas endommager le fusible situé sur le fond.*

2 *Insérer les 2 poignées entre l'appareil et le manchon comme indiqué pour désengagé les verrous de manchon.*

3 *Retirer le manchon.*

Remarque: *S'assurer de garder les poignées pour une utilisation ultérieur, après l'installation de l'appareil.*

4 *Installer le manchon dans le tableau de bord.*

* *Après installation correcte du manchon dans le tableau de bord, plier les bonnes pattes pour maintenir fermement le manchon en place, comme montré.*

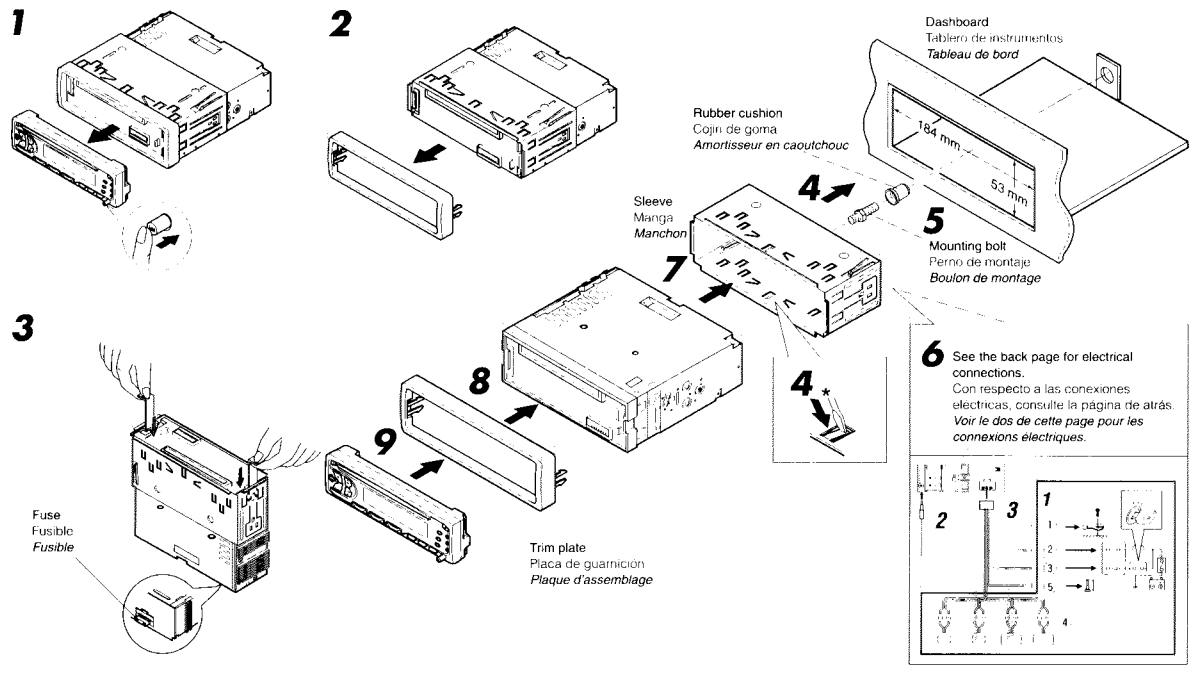
5 *Monter le boulon de montage sur l'arrière du corps de l'appareil puis passer l'amortisseur en caoutchouc sur l'extrémité du boulon.*

6 *Réalisez les connexions électriques expliquées au dos de cette page.*

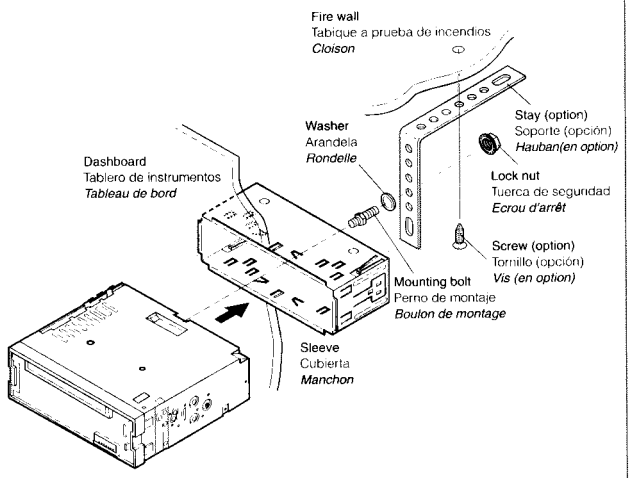
7 *Faire glisser l'appareil dans le manchon jusqu'à ce qu'il soit verrouillé.*

8 *Fixer la plaque d'assemblage.*

9 *Remonter le panneau de commande.*

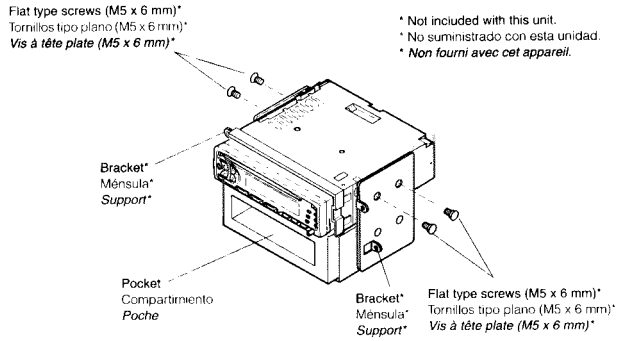


• When using the optional stay
• Cuando emplea un soporte opcional
• Lors de l'utilisation du hauban en option



• When installing the unit without using the sleeve
• Instalación de la unidad sin utilizar la cubierta
• Lors de l'installation de l'appareil sans utiliser de manchon

In a Toyota for example, first remove the car radio and install the unit in its place.
En un Toyota por ejemplo, primero extraiga la radio del automóvil y luego instale la unidad en su lugar.
Par exemple dans une Toyota, retirer d'abord l'autoradio et installer l'appareil à la place.



Note: When installing the unit on the mounting bracket, make sure to use the 6 mm-long screws. If longer screws are used, they could damage the unit.

Nota: Cuando instala la unidad en la ménsula de montaje, asegúrese de utilizar los tornillos de 6 mm de longitud. Si se utilizan tornillos más largos, éstos pueden dañar la unidad.

Remarque: *Lors de l'installation de l'appareil sur le support de montage, s'assurer d'utiliser des vis d'une longueur de 6 mm. Si des vis plus longues sont utilisées, elles peuvent endommager l'appareil.*

Removing the unit

• Before removing the unit, release the rear section.

1 Remove the control panel.

2 Remove the trim plate.

3 Insert the 2 handles into the slots, as shown. Then, while gently pulling the handles away from each other, slide out the unit. **(Be sure to keep the handles after installing it.)**

Extracción de la unidad

• Antes de extraer la unidad, libere la sección trasera.

1 Extraiga el panel de control.

2 Retire la placa de guarnición.

3 Inserte las 2 manijas entre las ranuras, como se muestra. Luego, separe gentilmente las manijas y extraiga la unidad. **(Asegúrese de conservar las manijas después de instalarlo.)**

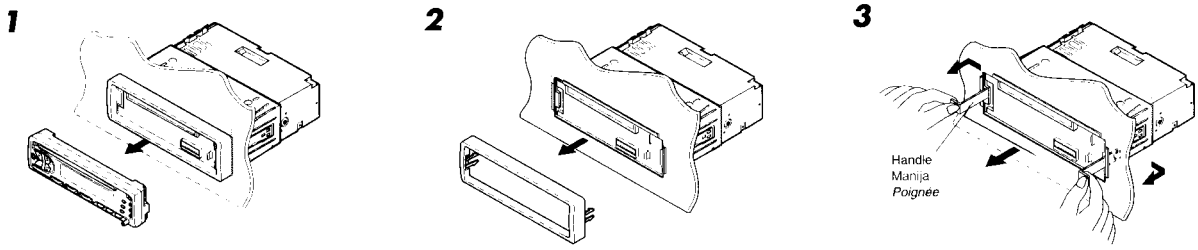
Retrait de l'appareil

• *Avant de retirer l'appareil, libérer la section arrière.*

1 *Retirer le panneau de commande.*

2 *Retirer la plaque d'assemblage.*

3 *Introduire les deux poignées dans les fentes, comme montré. Puis, tout en tirant doucement les poignées écartées, faire glisser l'appareil pour le sortir.* **(S'assurer de conserver les poignées après l'installation de l'appareil.)**



Parts list for installation and connection

The following parts are provided with this unit.
After checking them, please set them correctly.

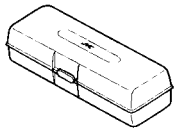
Lista de piezas para instalación y conexión

Con esta unidad se suministran las siguientes piezas.
Después de inspeccionarlas, colóquelas correctamente.

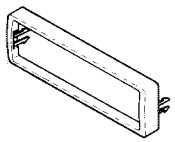
Liste des pièces pour l'installation et raccordement

Les pièces suivantes sont fournies avec cet appareil.
Après vérification, veuillez les placer correctement.

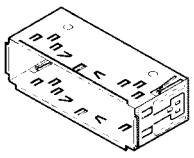
Hard case
Estuche duro
Etui de transport



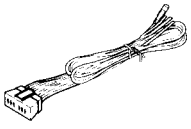
Trim plate
Placa de guarnición
Plaque d'assemblage



Sleeve
Cubierta
Manchon



Power cord
Cordón de alimentación
Cordon d'alimentation



Handles
Manijas
Poignées

Rubber cushion
Cojín de goma
Amortisseur en caoutchouc

Lock nut (M5)
Tuerca de seguridad (M5)
Ecrou d'arrêt (M5)

Mounting bolt (M5 x 20 mm)
Perno de montaje (M5 x 20 mm)
Boulon de montage (M5 x 20 mm)

Washer (ø5)
Arandela (ø5)
Rondelle (ø5)

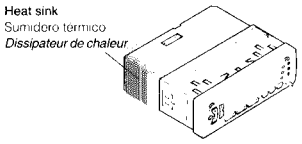
ENGLISH

ELECTRICAL CONNECTIONS

To prevent short circuits, we recommend that you disconnect the battery's negative terminal and make all electrical connections before installing the unit. If you are not sure how to install this unit correctly, have it installed by a qualified technician.

Note:
This unit is designed to operate only on **12 volts DC, NEGATIVE ground electrical systems**. If your vehicle does not have this system, a voltage inverter is required, which can be purchased at JVC car audio dealers.

- Replace the fuse with one of the specified rating. If the fuse blows frequently, consult your JVC car audio dealer.
- If noise is a problem...
  This unit incorporates a noise filter in the power circuit. However, with some vehicles, clicking or other unwanted noise may occur. If this happens, connect the unit's **rear ground terminal** (See connection diagram below.) to the car's chassis using shorter and thicker cords, such as copper braiding or gauge wire. If noise still persists, consult your JVC car audio dealer.
- Maximum input of the speakers should be more than 40 watts at the rear and 40 watts at the front, with an impedance of **4 to 8 ohms**.
- **Be sure to ground this unit to the car's chassis.**
- The heat sink becomes very hot after use. Be careful not to touch it when removing this unit.



ESPAÑOL

CONEXIONES ELECTRICAS

Para evitar cortocircuitos, recomendamos que desconecte el terminal negativo de la batería y que efectúe todas las conexiones eléctricas antes de instalar la unidad. Si usted no está seguro de cómo instalar correctamente la unidad, hágala instalar por un técnico cualificado.

Nota:
Esta unidad está diseñada para funcionar con **12 voltios de CC, con sistemas eléctricos de masa NEGATIVA** solamente. Si su vehículo no posee este sistema, será necesario un inversor de tensión, que puede ser adquirido en los concesionarios de JVC de equipos de audio para automóviles.

- Reemplace el fusible por uno con la corriente especificada. Si el fusible se quemase frecuentemente consulte con su concesionario de JVC de equipos de audio para automóviles.
- Si el ruido fuese un problema...
  Esta unidad tiene un filtro de ruido en el circuito de alimentación. Sin embargo, en algunos vehículos, pueden producirse chasquidos u otros ruidos indeseados. En tal caso conecte el **terminal de tierra posterior** (Ver diagrama de conexión abajo.) del receptor al chasis del automóvil, utilizando cordones más gruesos y cortos tales como alambre de cobre trenzado o de grueso calibre. Si el ruido persiste, consulte a su concesionario de JVC de equipos de audio para automóvil.
- La entrada máxima de los altavoces traseros debe ser mayor de 40 vatios y la de los delanteros de 40 vatios, con una impedancia de **4 a 8 ohmnios**.
- **Asegúrese de conectar esta unidad a tierra en el chasis del automóvil.**
- El sumidero térmico estará muy caliente después del uso. Asegúrese de no tocarlo al desmontar esta unidad.

FRANÇAIS

RACCORDEMENTS ELECTRIQUES

Pour éviter tout court-circuit, nous vous recommandons de débrancher la borne négative de la batterie et d'effectuer tous les raccordements électriques avant d'installer l'appareil. Si l'on n'est pas sûr de pouvoir installer correctement cet appareil, le faire installer par un technicien qualifié.

Remarque:
Cet appareil est conçu pour fonctionner sur des sources de courant continu de **12 volts à masse NEGATIVE** *seulement. Si votre véhicule n'offre pas ce type d'alimentation, il vous faut un convertisseur de tension, que vous pouvez acheter chez un revendeur d'autoradios JVC.*

- *Remplacer le fusible par un de la valeur précisée. Si le fusible saute souvent, consulter votre revendeur d'autoradios JVC.*
- *Si le bruit est un problème...*
  Cet appareil incorpore un filtre de bruit dans le circuit d'alimentation. Cependant, avec certains véhicules, quelques claquements ou autres bruits non désirés risquent de se produire. Si cela arrive, raccorder la **borne de masse arrière** *de l'appareil au châssis de la voiture (voir le schéma de raccordement ci-dessous) en utilisant des cordons les plus gros et les plus courts possibles telle qu'une barre de cuivre ou une tresse. Si le bruit persiste, consulter votre revendeur d'autoradios JVC.*
- *La puissance admissible des haut-parleurs doit être supérieure à 40 watts à l'arrière et à 40 watts l'avant, avec une impédance de* **4 à 8 ohms**.
- **S'assurer de raccorder la mise à la masse de cet appareil au châssis de la voiture.**
- *Le radiateur devient très chaud après usage. Faire attention de ne pas le toucher en retirant cet appareil.*

A Typical Connections / Conexiones típicas / Raccordements typiques

Before connecting: Check the wiring in the vehicle carefully not to fail in connecting this unit. Incorrect connection may cause a serious damage to this unit.

1 Connect the colored leads of the power cord to the car battery, speakers and automatic antenna (if any) in the following sequence.
   1: Black: ground
   2: Yellow: to car bettery (constant 12V)
   3: Red: to an accessory terminal
   4: Others (except blue with white stripe): to speakers
   5: Blue with white stripe: to automatic antenna

2 Connect the antenna cord.

3 Finally connect the wiring harness to the unit.

Antes de la conexión: Verifique atentamente el conexionado del vehículo para no cometer errores al conectar esta unidad. Una conexión incorrecta podría producir daños graves en la unidad.

1 Conecte los conductores de color del cable de alimentación a la batería del automóvil, altavoces y antena automática (si la hubiere) en la secuencia siguiente.
   1: Negro: a tierra
   2: Amarillo: a la batería del automóvil (12V constantes)
   3: Rojo: a un terminal de accesorio
   4: Otros, excepto azul con rayas blancas: a los altavoces
   5: Azul con rayas blancas: a la antena automática

2 Conecte el cable de antena.

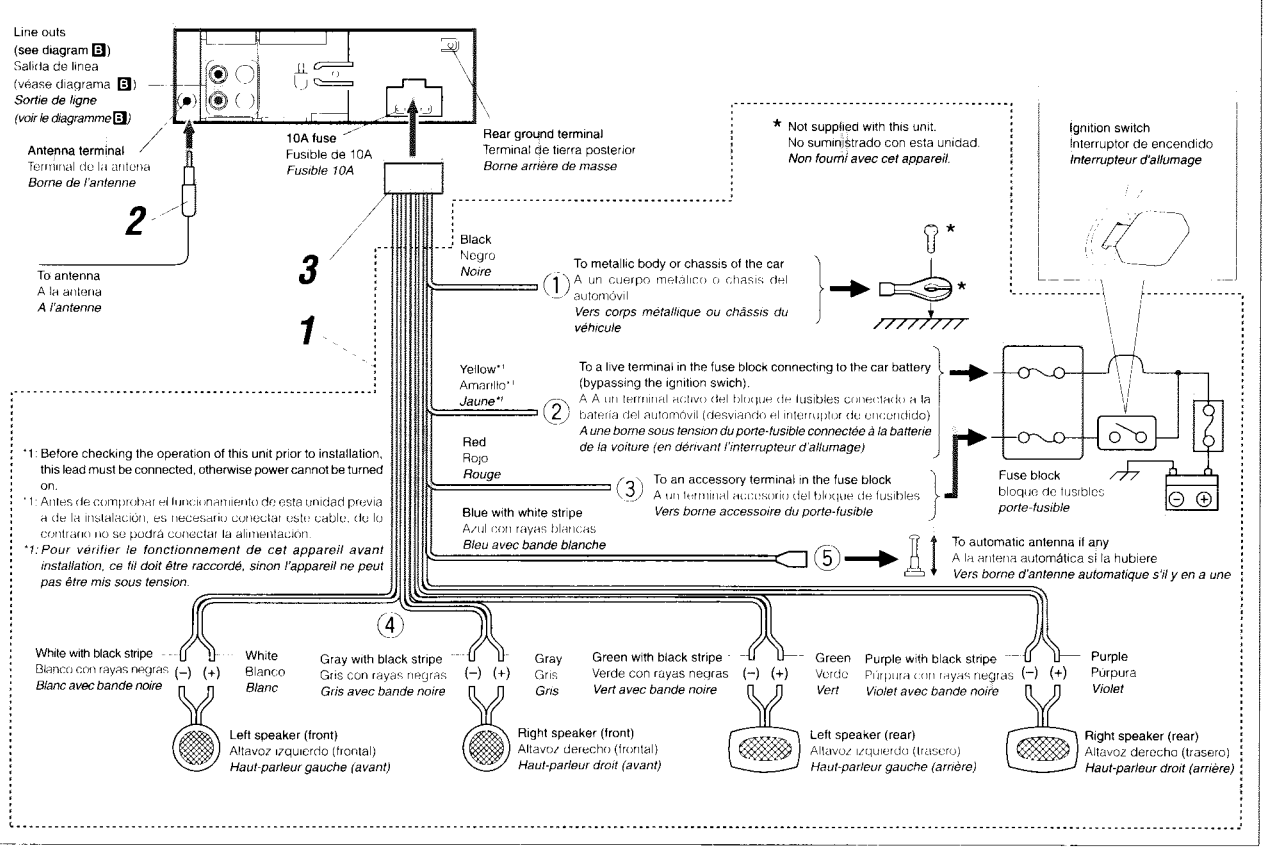
3 Por último, conecte a la unidad el cableado preformado.

Avant de commencer la connexion: *vérifiez attentivement le câblage du véhicule pour ne pas connecter incorrectement cet appareil. Une connexion incorrecte peut endommager sérieusement l'appareil.*

1 *Connectez les fils de couleur du cordon d'alimentation à la batterie de la voiture, aux enceintes et à l'antenne automatique (s'il y en a une) dans l'ordre suivant.*
   1 *Noir: a la masse*
   2 *Jaune: a la batterie de la voiture (12V constant)*
   3 *Rouge: à la prise accessoire*
   4 *Autres fils à l'exception du fil bleu à bandes blanches: aux enceintes*
   5 *Bleu à bandes blanches: à l'antenne automatique*

2 *Connectez le cordon d'antenne.*

3 *Finalement, connectez le faisceau de fils à l'appareil.*



PRECAUTIONS on power supply and speaker connections:

- **DO NOT** connect the speaker leads of the power cord to the car battery; otherwise, the unit will be seriously damaged.
- Connect the black lead (ground), yellow lead (to car battery, constant 12V), and red lead (to an accessory terminal) correctly.
- BEFORE connecting the speaker leads of the power cord to the speakers, check the speaker wiring in your car.
  - **If the speaker wiring in your car is as illustrated in Fig. 1 and Fig. 2 below,** DO NOT connect the unit using that original speaker wiring. If you do, the unit will be seriously damaged. Redo the speaker wiring so that you can connect the unit to the speakers as illustrated in Fig. 3.
  - **If the speaker wiring in your car is as illustrated in Fig. 3,** you can connect the unit using the original speaker wiring in your car.
  - If you are not sure of the speaker wiring of your car, consult your car dealer.

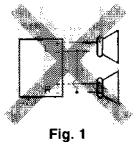


Fig. 1

PRECAUCIONES sobre las conexiones de la fuente de alimentación y de los altavoces:

- **NO** conecte los conductores de altavoz del cable de alimentación a la batería de automóvil, pues podrían producirse graves daños en la unidad.
- Conecte correctamente el conductor negro (a tierra), el conductor amarillo (a la batería del automóvil, 12V constantes), y el conductor rojo (a un terminal de accesorio).
- ANTES de conectar a los altavoces los conductores de altavoz del cable de alimentación, verifique el conexionado de altavoz de su automóvil.
  - **Si el conexionado de altavoz de su automóvil es como se indica en las Figs. 1 y 2 de abajo,** NO conecte la unidad utilizando ese conexionado de altavoz original. Si lo hace, se producirán daños graves en la unidad. Vuelva a efectuar el conexionado de altavoz de manera que pueda conectar la unidad a los altavoces de la manera indicada en la Fig.3.
  - **Si el conexionado de altavoz de su automóvil es como se indica en la Fig.3,** podrá conectar la unidad utilizando el conexionado de altavoz original de su automóvil. Si tiene dudas sobre el conexionado de altavoz de su automóvil, consulte con su concesionario.

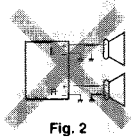


Fig. 2

PRECAUTIONS sur l'alimentation et la connexion des enceintes:

- ***NE CONNECTEZ PAS** les fils d'enceintes du cordon d'alimentation à la batterie; sinon, l'appareil serait sérieusement endommagé.*
- *Connectez correctement le fil noir (a la masse), le fil jaune (a la batterie de la voiture,12V constant) et le fil rouge (à la prise accessoire).*
- *AVANT de connecter les fils d'enceintes du cordon d'alimentation aux enceintes, vérifiez le câblage des enceintes de votre voiture.*
  - **Si le câblage des enceintes de votre voiture est réalisé comme montré sur la Fig. 1 ou Fig. 2 ci-dessous,** *NE CONNECTEZ PAS l'appareil en utilisant ce câblage original d'enceintes. Si vous le faites, l'appareil sera sérieusement endommagé. Recommencez le câblage des enceintes de façon que vous puissiez connecter l'appareil aux enceintes comme montré sur la Fig. 3.*
  - **Si le câblage des enceintes de votre voiture est comme montré sur la Fig. 3,** *vous pouvez connecter l'appareil en utilisant ce câblage original d'enceintes pour votre voiture.*
  - *Si vous n'êtes pas sûrs du câblage d'enceintes de votre voiture, consulter le concessionnaire de votre voiture.*

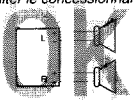
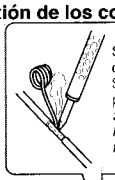


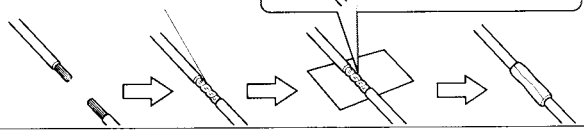
Fig. 3

Connecting the leads / Conexión de los conductores / Raccordement des fils

Twist the core wires when connecting.
Retuerza los alambres de alma para conectarlos.
Torsader les âmes des fils en les raccordant.

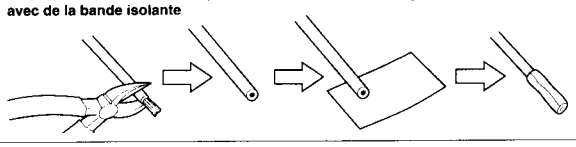


Solder the core wires to connect them securely.
Suelde los alambres de alma para conectarlos con firmeza.
Souder les âmes desfils pour les raccorder entre eux de façon sûre.



CAUTION / PRECAUCION / PRECAUTION:

- **To prevent short-circuit, cover the terminals of the UNUSED leads with insulating tape.**
- **Para evitar cortocircuitos, cubra los cables NO UTILIZADOS con cinta aislante.**
- **Pour éviter les court-circuits, couvrir les bornes des fils qui ne sont PAS utilisés avec de la bande isolante**



B Connections Adding Other Equipment / Conexiones para añadir otros equipos / Raccordement pour ajouter d'autres appareils

Since this unit has line-out terminals, an amplifier and other equipment can be used to upgrade your car stereo system.

- Connect the remote lead (blue with white stripe) to the remote lead of the other equipment so that it can be controlled through this unit.
- For amplifier only:
  - Connect this unit's line-out terminals to the amplifier's line-in terminals.
  - **Disconnect the speakers from this unit, connect them to the amplifier. Leave the speaker leads of this unit unused. (Cover the terminals of the these unused leads with insulating tape, as illustrated above.)**

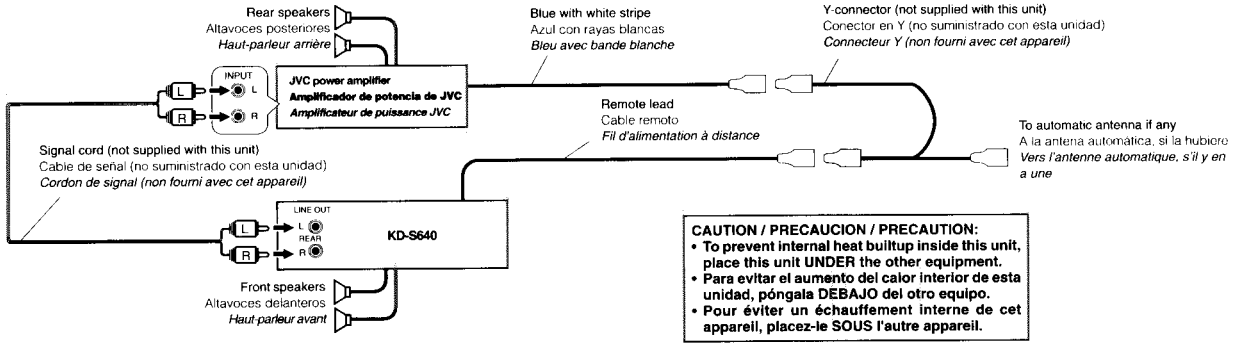
Como esta unidad posee terminales de salida de línea, se puede utilizar un amplificador u otro equipamiento para mejorar el sistema estereofónico de su automóvil.

- Conecte el cable remoto (azul con rayas blancas) al cable remoto del otro equipo para que pueda ser controlado a través de esta unidad.
- Sólo para el amplificador:
  - Conecte los terminales de salida de línea de esta unidad con los terminales de entrada de línea del amplificador.
  - **Desconecte los altavoces de esta unidad y conéctelos al amplificador. Los cables de los altavoces de esta unidad quedan sin usar. (Cubra los terminales de estos cables sin usar con cinta aislante, tal comose indica en la figura de arriba).**

Comme cet appareil a des bornes de sortie de ligne, un amplificateur et d'autres appareils peuvent être utilisés pour améliorer votre chaîne stéréo automobile.

- *Connecter le fil d'alimentation à distance (bleu avec des bandes blanches) au fil d'alimentation à distance de l'autre appareil de façon qu'il puisse être contrôlé par cet appareil.*
- *Pour l'amplificateur seulement:*
  - *Raccorder les bornes de sortie ligne de cet appareil aux bornes d'entrée ligne de l'amplificateur.*
  - **Déconnectez les enceintes de cet appareil et connectez-les à l'amplificateur. Laissez les fils d'enceintes de cet appareil inutilisés. (Recouvrir les extrémités de ces fils inutilisés avec de la bande isolante comme montré ci-dessus.)**

Amplifier / Amplificador / Amplificateur



CAUTION / PRECAUCION / PRECAUTION:

- **To prevent internal heat builtup inside this unit, place this unit UNDER the other equipment.**
- **Para evitar el aumento del calor interior de esta unidad, póngala DEBAJO del otro equipo.**
- **Pour éviter un échauffement interne de cet appareil, placez-le SOUS l'autre appareil.**

TROUBLESHOOTING

- **The fuse blows.**
  - Are the red and black leads connected correctlly?
- **Power cannot be turned on.**
  - Is the yellow lead connected?
- **No sound from the speakers.**
  - Is the speaker output lead short-circuited?
- **Sound is distorted.**
  - Is the speaker output lead grounded?
  - Are the "–" terminals of L and R speakers grounded in common?
- **Unit becomes hot.**
  - Is the speaker output lead grounded?
  - Are the "–" terminals of L and R speakers grounded in common?

LOCALIZACION DE AVERIAS

- **El fusible se quema.**
  - ¿Están los conductores rojo y negro correctamente conectados?
- **No es posible conectar la alimentación.**
  - ¿Está el cable amarillo conectado?
- **No sale sonido de los altavoces.**
  - ¿Está el cable de salida del altavoz cortocircuitado?
- **El sonido presenta distorsión.**
  - ¿Está el cable de salida del altavoz conectado a masa?
  - ¿Están los terminales "–" de los altavoces L y R conectados a una masa común?
- **La unidad se calienta.**
  - ¿Está el cable de salida del altavoz conectado a masa?
  - ¿Están los terminales "–" de los altavoces L y R conectados a una masa común?

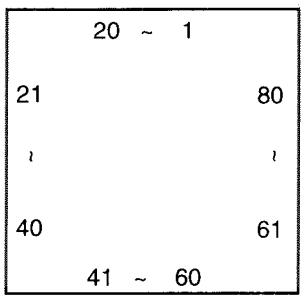
EN CAS DE DIFFICULTÉS

- **Le fusible saute.**
  - *Les fils rouge et noir sont-ils racordés correctement?*
- **L'appareil ne peut pas être mise sous tension.**
  - *Le fil jaune est-elle raccordée?*
- **Pas de son des haut-parleurs.**
  - *Le fil de sortie de haut-parleur est-il court-circuité?*
- **Le son est déformé.**
  - *Le fil de sortie de haut-parleur est-il à la masse?*
  - *Les bornes "–" des haut-parleurs gauche et droit sont-elles mises ensemble à la masse?*
- **L'appareil devient chaud.**
  - *Le fil de sortie de haut-parleur est-il à la masse?*
  - *Les bornes "–" des haut-parleurs gauche et droit sont-elles mises ensemble à la masse?*

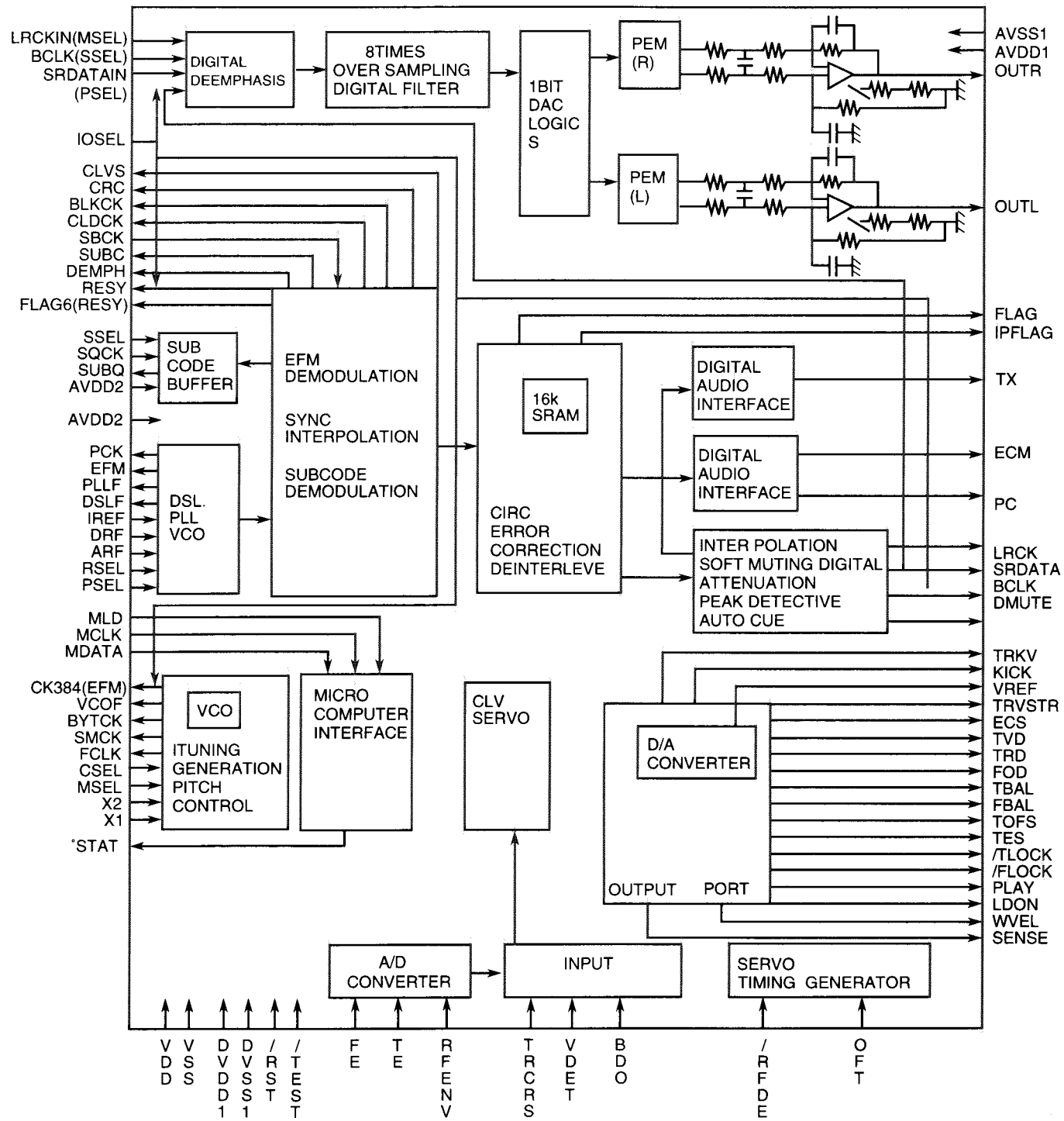
Description of Major ICs

■ MN35510(IC561) : DIGITAL SERVO & DIGITAL SIGNAL PROCESSOR

1. Terminal Layout



2. Block Diagram



3. Description

Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	BCLK	O	Not used	41	TES	O	Tracking error shunt signal output(H:shunt)
2	LRCK	O	Not used	42	PLAY	–	Not used
3	SRDATA	O	Not used	43	WVEL	–	Not used
4	DVDD1	–	Power supply (Digital)	44	ARF	I	RF signal input
5	DVSS1	–	Connected to GND	45	IREF	I	Reference current input pin
6	TX	O	Digital audio inter output	46	DRF	I	Bias pin for DSL
7	MCLK	I	μcom command clock signal input (Data is latched at signal's rising point)	47	DSLF	I/O	Loop filter pin for DSL
8	MDATA	I	μcom command data input	48	PLLF	I/O	Loop filter pin for PLL
9	MLD	I	μcom command load signal input	49	VCOF	–	Not used
10	SENSE	O	Sense signal output	50	AVDD2	–	Power supply(Analog)
11	FLOCK	O	Focus clock signal output Active :Low	51	AVSS2	–	Connected to GND(Analog)
12	TLOCK	O	Tracking clock signal output Active :Low	52	EFM	–	Not used
13	BLKCK	O	sub-code·block·clock signal output	53	PCK	–	Not used
14	SQCK	I	Outside lock for sub-code Q resistor input	54	PDO	–	Not used
15	SUBQ	O	Sub-code Q -code output	55	SUBC	–	Not used
16	DMUTE	–	Connected to GND	56	SBCK	–	Not used
17	STATUS	O	Status signal (CRC,CUE,CLVS,TTSTOP,ECLV,SQOK)	57	VSS	–	Connected to GND(for X'tal cscillation circuit)
18	RST	I	Reset signal input (L:Reset)	58	XI	I	Input of 16.9344MHz X'tal oscillation circuit
19	SMCK	–	Not used	59	X2	O	Output of X'tal oscillation circuit
20	PMCK	–	Not used	60	VDD	–	Power supply(for X'tal cscillationcircuit)
21	TRV	O	Traverse enforced output	61	BYTCK	–	Not used
22	TVD	O	Traverse drive output	62	CLDCK	–	Not used
23	PC	–	Not used	63	FLAG	–	Not used
24	ECM	O	Spindle motor drive signal (Enforced mode output) 3-State	64	IPPLAG	–	Not used
25	ECS	O	Spindle motor drive signal (Servo error signal output)	65	FLAG	–	Not used
26	KICK	O	Kick pulse output	66	CLVS	–	Not used
27	TRD	O	Tracking drive output	67	CRC	–	Not used
28	FOD	O	Focus drive output	68	DEMPH		Not used
29	VREF	I	Reference voltage input pin for D/A output block (TVD,FOD,FBA,TBAL)	69	RESY	–	Not used
30	FBAL	O	Focus Balance adjust signal output	70	IOSEL	–	pull up
31	TBAL	O	Tracking Balance adjust signal output	71	TEST	–	pull up
32	FE	I	Focus error signal input(Analog input)	72	AVDD1	–	Power supply(Digital)
33	TE	I	Tracking error signal input(Analog input)	73	OUT L	O	Lch audio output
34	RF ENV	I	RF envelope signal input(Analog input)	74	AVSS1	–	Connected to GND
35	VDET	I	Vibration detect signal input(H:detect)	75	OUT R	O	Rch audio output
36	OFT	I	Off track signal input(H:off track)	76	RSEL	–	pull up
37	TRCRS	I	Track cross signal input	77	CSEL	–	Connected to GND
38	RFDET	I	RF detect signal input(L:detect)	78	PSEL	–	Connected to GND
39	BDO	I	BDO input pin(L:detect)	79	MSEL	–	Connected to GND
40	LDON	O	Laser ON signal output(H:on)	80	SSEL	–	Pull up

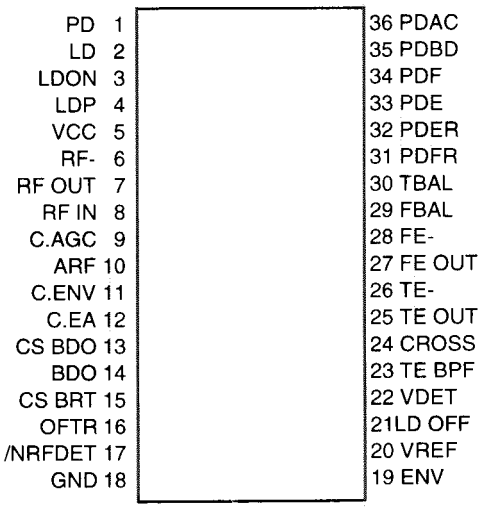
■IC601 : JES01-9475 or LC72P366(CPU) Terminal's Function Table

Terminal Function

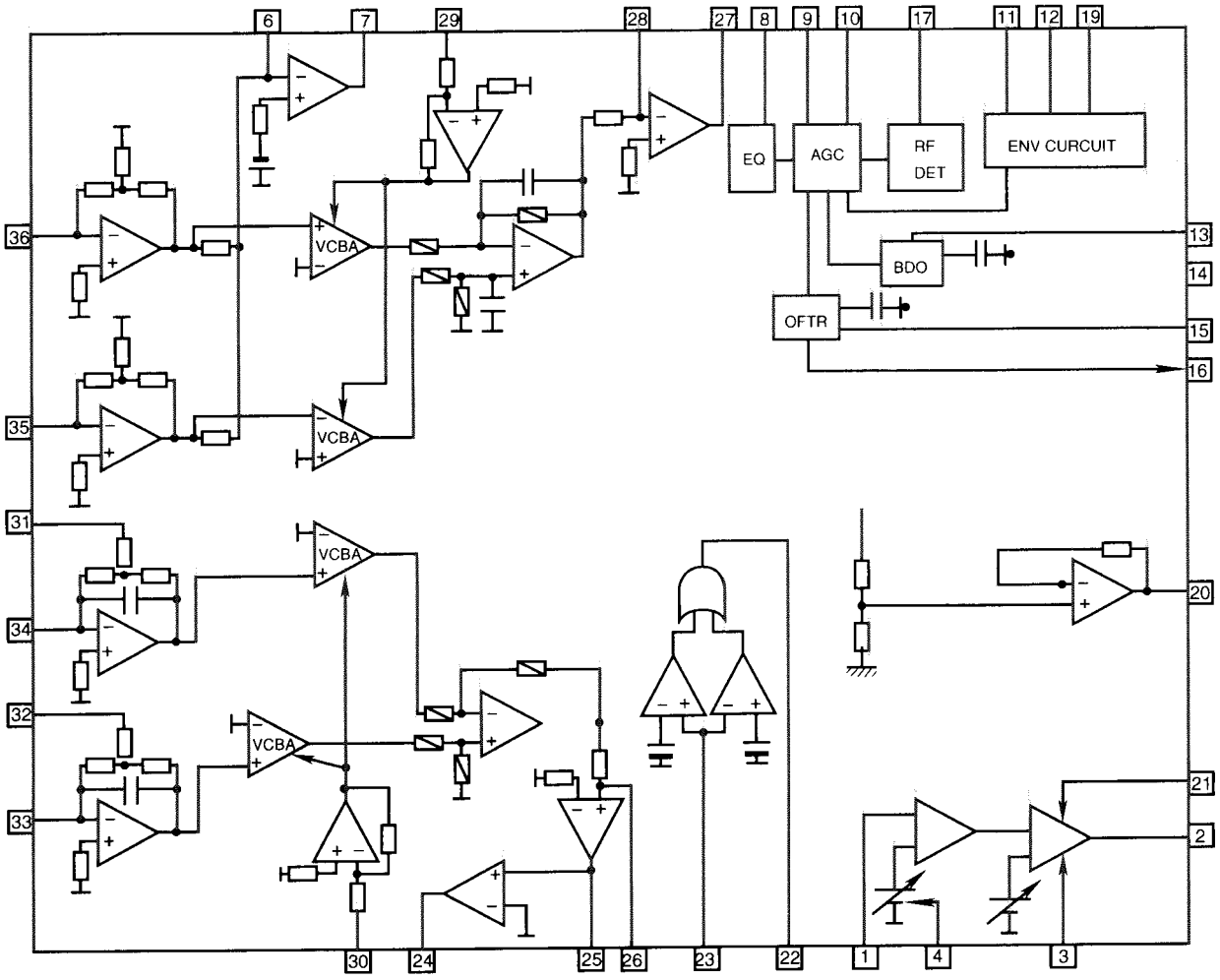
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	XIN		4.5MHz crystal oscillation connection pin.	41	CD ON	O	CD power supply on ("H": 8V,"L": 0V)
2		-	Non connection	42	RELAY	O	5V power control
3		-	Non connection	43	POWERCONT	-	Non connection
4		-	Non connection	44		-	Non connection
5		-	Non connection	45		-	Non connection
6		-	Non connection	46	SW1	I	Disc in detecting switch input. (8cm disc detect)
7	SUBQ	I	CD Lsi Sub-code Q-codedata input (to IC651 pin14)	47	SW3	I	Disc existence detecting switch input (Loading finish detect)
8		-	Non connection	48	RESETSW	I	Rest switch input
9	SQCK	O	CD Lsi Sub-code clock	49		-	Non connection
10	/RESET	O	Micon reset pin	50		-	Non connection
11		-	Non connection	51	CDSENSE	I	Sense signal input from CD Lsi.
12		-	Non connection	52	STATAS	I	Status signal input
13		-	Non connection	53	P.SAVE2	I	Power save 2 detecting input
14	LCDCE	O	Chip enable signal output for LCD driver	54	SO/ST		Station detection ("H": found)/Stereo indication ("L":Stereo)
15		-	Non connection	55		-	Non connection
16		-	Non connection	56		-	Non connection
17		-	Non connection	57	BAND	O	FM/AM band selection ("H":FM , "L":AM)
18		-	Non connection	58	/MONO	O	FM mono control signal output ("H":mono)
19	LM0	O	Loading motor control signal output (FWD)	59	IFRQ/ABC		During FM auto search,IF reguest output "H" after SD detected.
20	LM1	O	Loading motor control signal output (REW)	60	/MUTE	O	Muting switch
21		-	Non connection	61		-	Non connection
22		-	Non connection	62	SMETER	I	S.meter input
23		-	Non connection	63	KEYCHANGE	-	AD Key select ("H" :Normal, "L":Test)
24	KS2	O	Initial setting diode matrix output pin 2	64	KEY2	I	KEY AD input pin 2
25	KS1	O	Initial setting diode matrix output pin 1	65	KEY1	I	KEY AD input pin 1
26	KS0	O	Initial setting diode matrix output pin 0	66	KEY0	I	KEY AD input pin 0
27	DETACH	I	Remove the front panel detecting input	67	P.SAVE1	I	Power save 1 detecting input
28		-	Non connection	68	SENSE	O	Sense signal output
29		-	Non connection	69		-	Non connection
30		-	Non connection	70	FMIFCOUT	I	FM IF count signal input
31		-	Non connection	71		-	Non connection
32	SW2	I	Detect switch for 12cm disc input	72		-	Non connection
33	Lsi reset	O	CD Lsi reset signal output	73	Vdd	-	Power source pin
34	MCLK	O	CD Lsi command clock signal output	74		-	Non connection
35	MDATA	O	CD Lsi command data output	75	FMOSC	I	FM local oscillator signal input
36	MLD	O	CD Lsi command load signal output	76	Vss	-	Connected to GND
37		-	Non connection	77	NC	-	Non connection
38		-	Non connection	78	ERROROUT	O	PLL error signal output
39	SCL	O	E.volume clock signal output	79	GND	-	Test pin (To GND)
40	SDA	O	E.volume data signal output	80	XOUT	O	4.5MHz crystal oscillator connection pin.

■ AN8806SB(IC501) : RF & SERVO AMP

1. Terminal Layout



2. Block Diagram

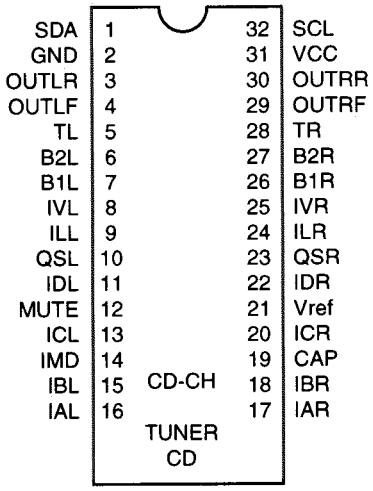


3. Functions

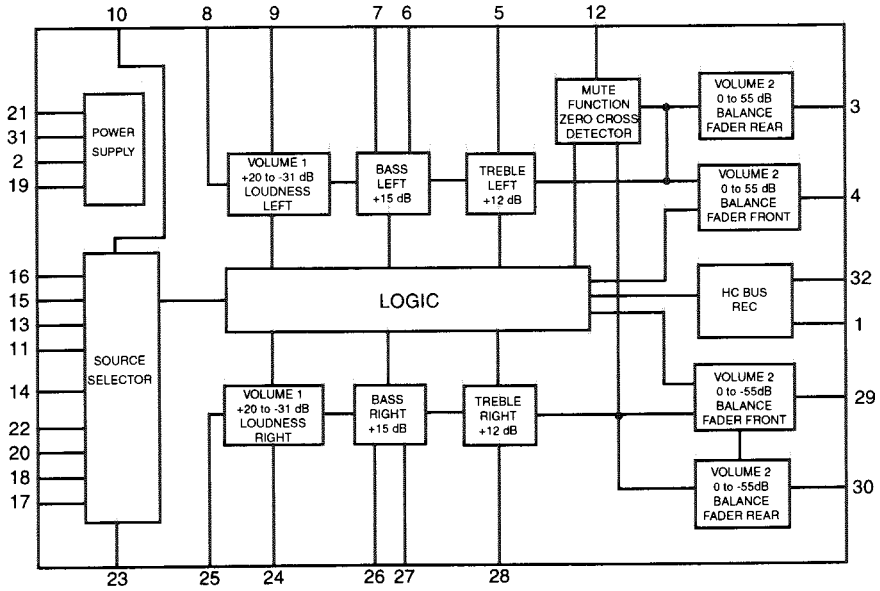
Pin No.	Symbol	I/O	Functions and operations
1	PD	I	APC amp input terminal
2	LD	O	APC amp output terminal
3	LD ON	I	APC ON/OFF control terminal
4	LDP	--	Connect to ground
5	VCC	--	Power supply
6	RF-	I	Inverse input pin for RF amp
7	RF OUT	O	RFamp output
8	RF IN	I	RF input
9	C.AGC	I/O	Connecting pin of AGC loop filter
10	ARF	O	RF output
11	C.ENV	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
12	C.EA	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
13	CS BDO	I/O	A capacitor is connected to detect the lower envelope of RF signal
14	BDO	O	BDO output pin
15	CS BRT	I/O	A capacitor is connected to detect the lower envelope of RF signal
16	OFTR	O	Of-track status signal output
17	/NRFDET	O	RF detection signal output
18	GND	--	Ground
19	ENV	O	Envelope output
20	VREF	O	Reference voltage output
21	LD OFF	--	Connect to ground
22	VDET	O	Vibration detection signal output
23	TE BPF	I	Input pin of tracking error through BPF
24	CROSS	O	Tracking error cross output
25	TE OUT	O	Tracking error signal output
26	TE-	I	Inverse input pin for tracking error amp
27	FE OUT	O	Output pin of focus error
28	FE-	I	Inverse input pin for focus error amp
29	FBAL	I	Focus balance control
30	TBAL	I	Tracking balance control
31	PDFR	I/O	F I-V amp gain control
32	PDER	I/O	E I-V amp gain control
33	PDF	I	I-V amp input
34	PDE	I	I-V amp input
35	PD BD	I	I-V amp input
36	PD AC	I	I-V amp input

■ TEA6320T(IC301) : E. VOLUME

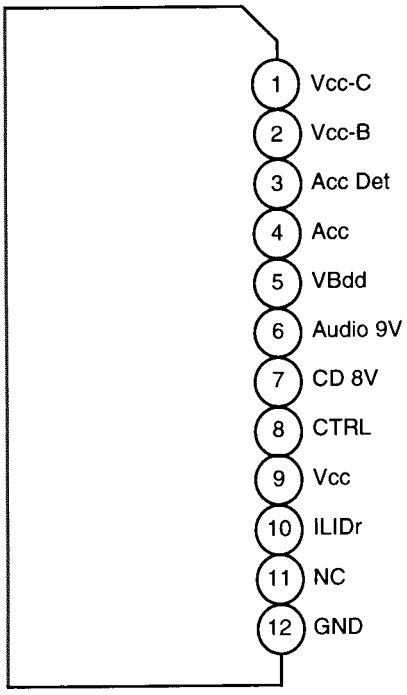
1. Terminal Layout



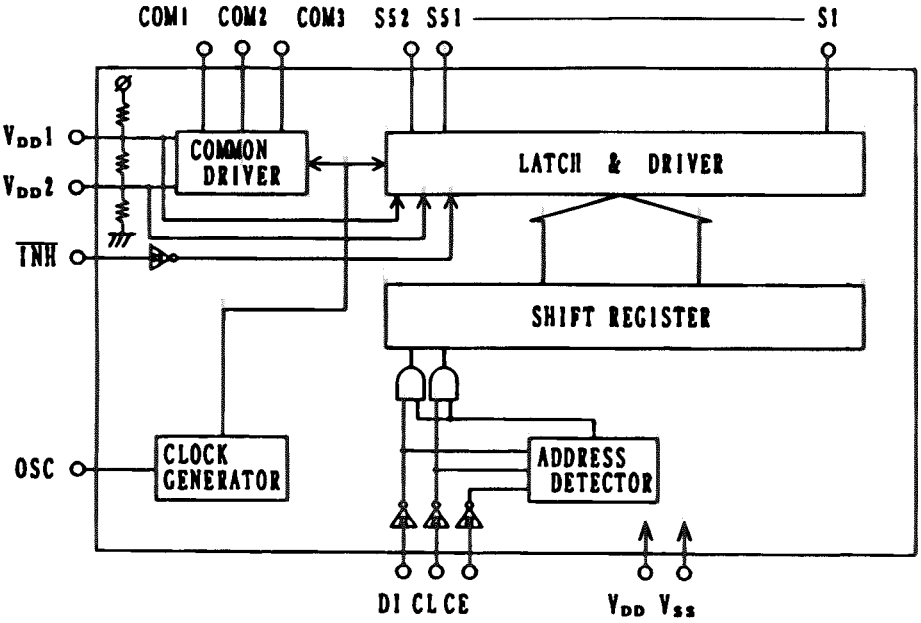
2. Block Diagram



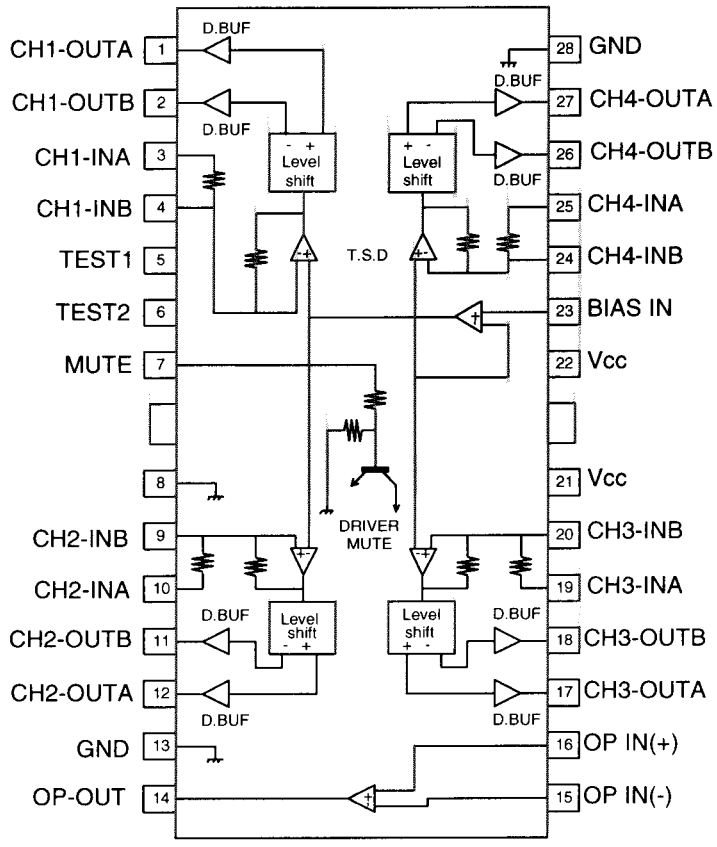
■ IC901 : BA4901 (REGULATOR)



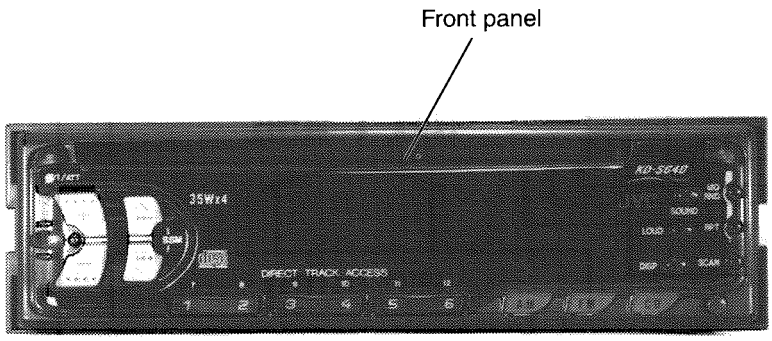
■ **IC951 : LC75823E (LCD DRIVER)**

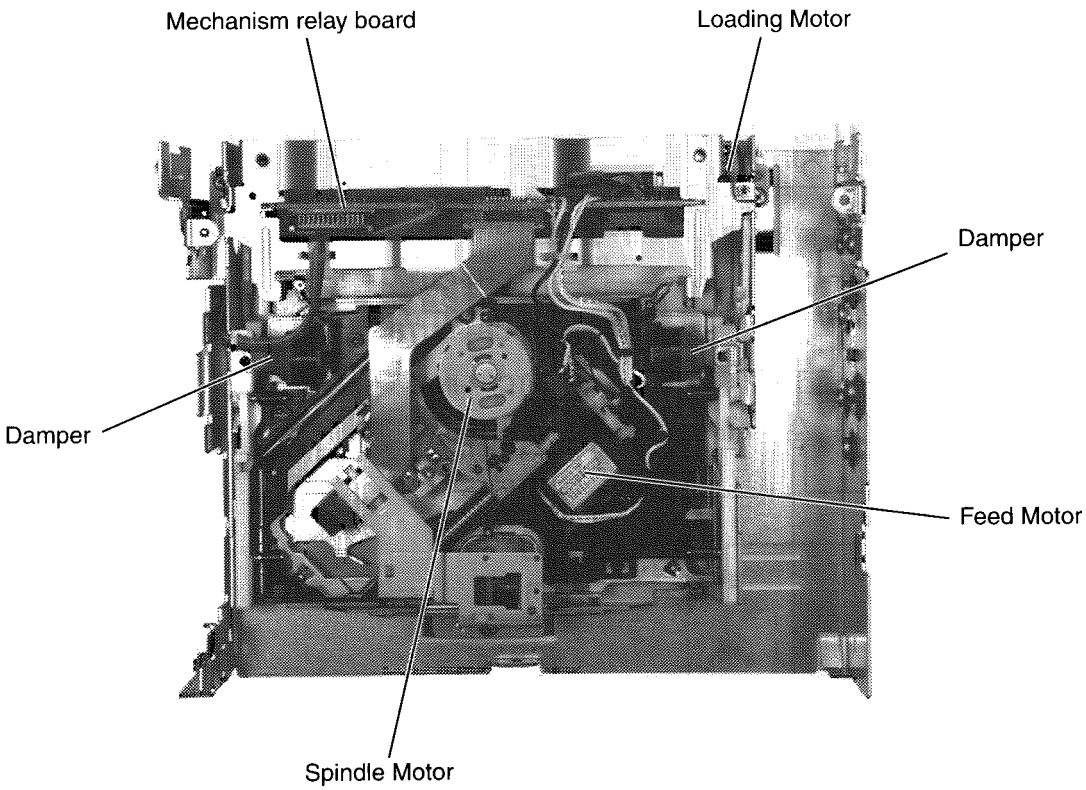


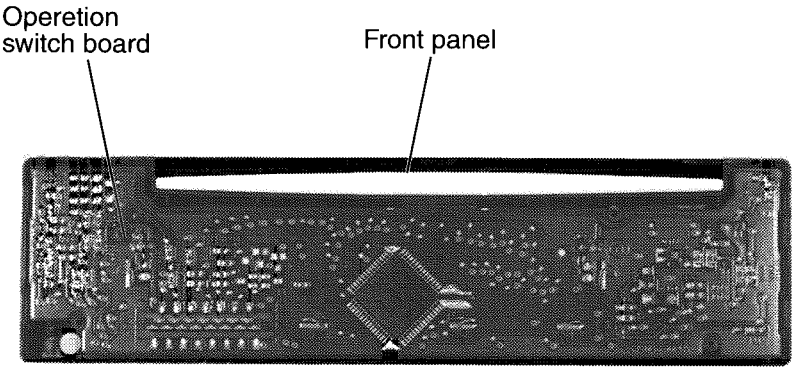
■ **BA6898FP(IC541) 4channel driver**

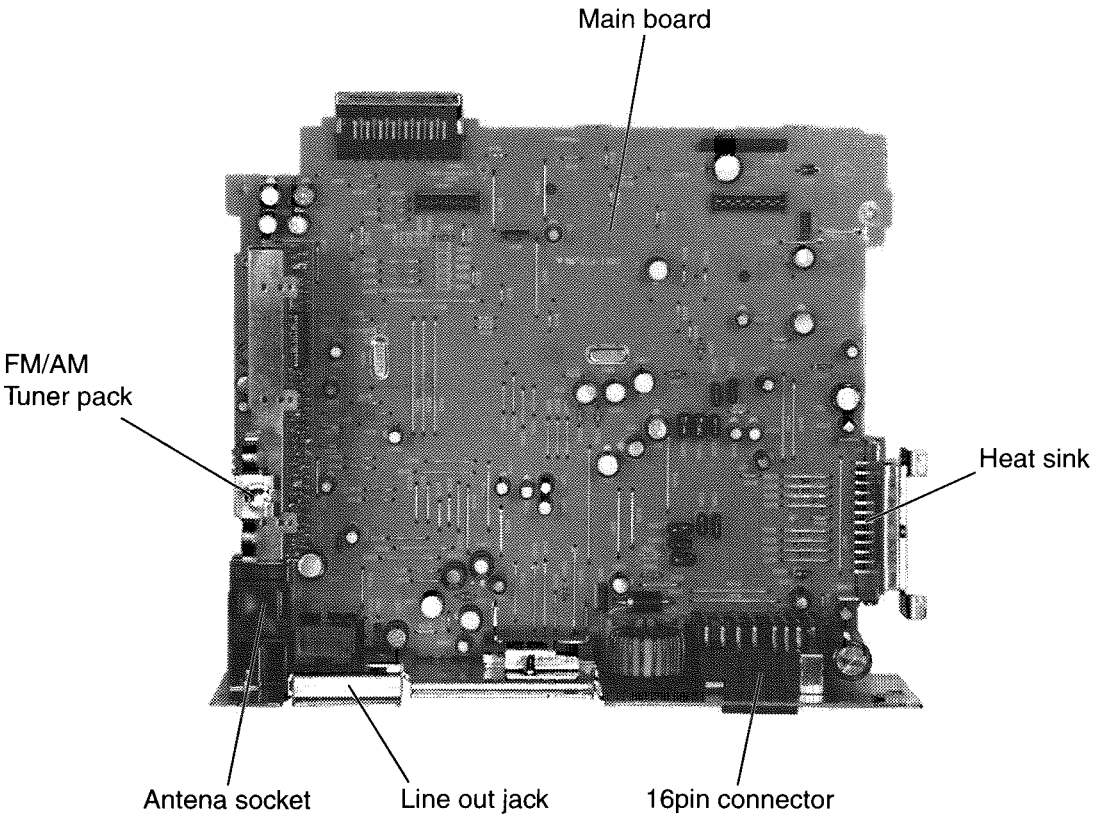


Location of Main Parts






Operetion
switch board
Front panel


Main board
FM/AM
Tuner pack
Heat sink
Antena socket
Line out jack
16pin connector

Disassembly Method

■ Detaching the front Panel Unit (See Fig.1)

Side the Release switch in the direction of arrow to detach the front panel unit .

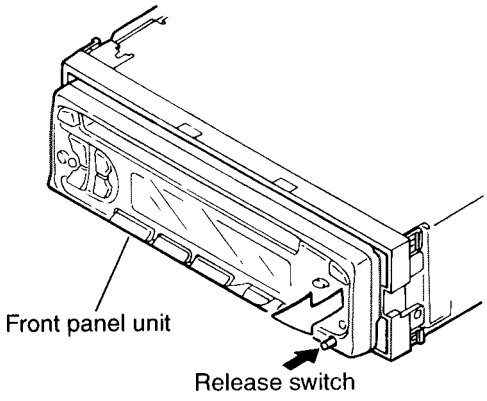


Fig.1

■ Removing the front chassis (See Fig.2)

1. Remove two ribs in the right side of unit and pull the front chassis forward to remove it.
2. Remove two ribs in the left side of unit and pull the front chassis forward to remove it.

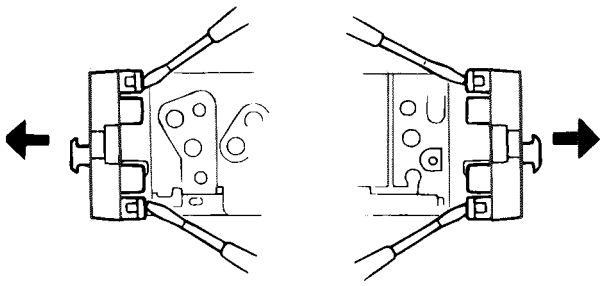


Fig.2

■ Removing the heat sink (See Fig.3)

1. Tune the left side unit.
2. Remove three screws A retaining the heat sink.

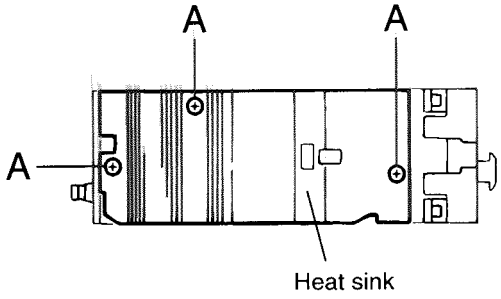


Fig.3

■ Removing the bottom cover (See Fig.4)

Tune the unit upside down then insert and turn the screw driver remove the bottom cover.

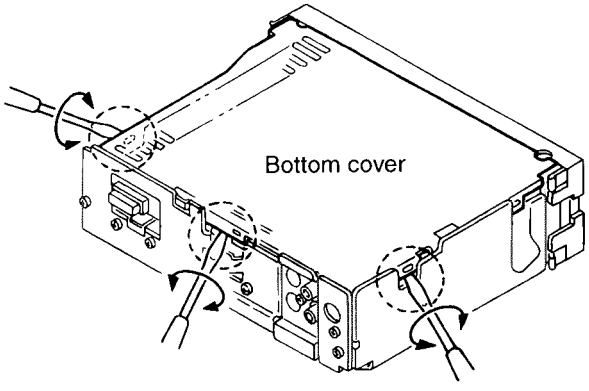


Fig.4

■ Removing the main board (See Fig.5, Fig.6)

1. Remove two screws B retaining the main board.
2. Turn the back side unit.
3. Remove three screws C retaining the rear bracket.
4. Lift up the main board to remove it, at this time remove the connections CN501 and CN502 connecting the main board and CD mechanism assembly.

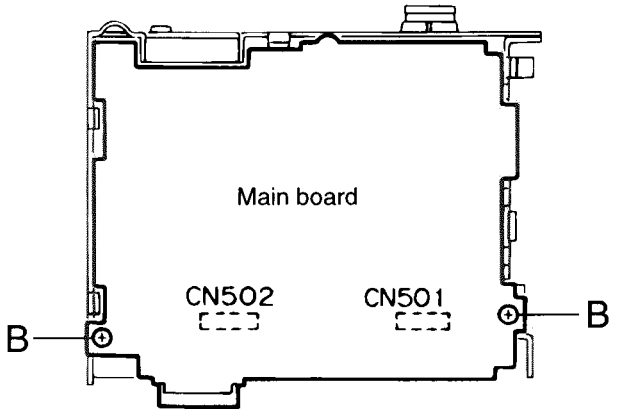


Fig.5

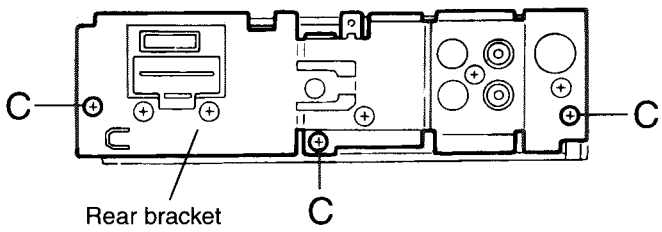


Fig.6

■ Removing the CD mechanism assembly (See Fig.7)

Remove three screws D retaining the CD mechanism assembly from the top cover.

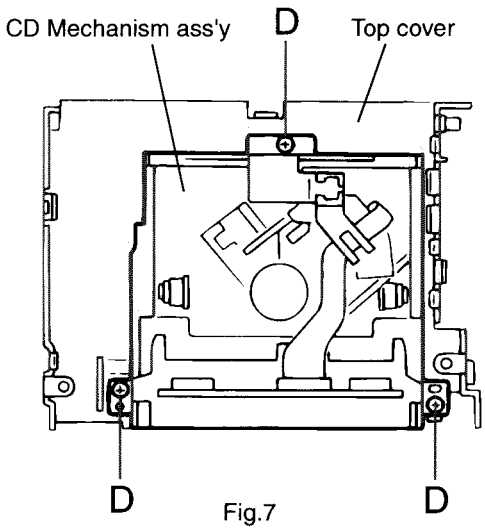


Fig.7

■ Removing the operation switch board (See Fig.8, Fig.9)

1. Turn the front panel unit upside down then.
2. Remove four screws E retaining the rear cover.
3. Take the operation switch board off on the front Panel.

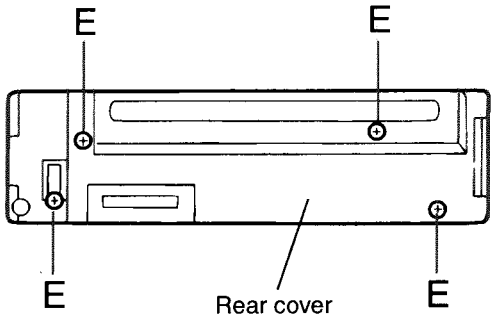


Fig.8

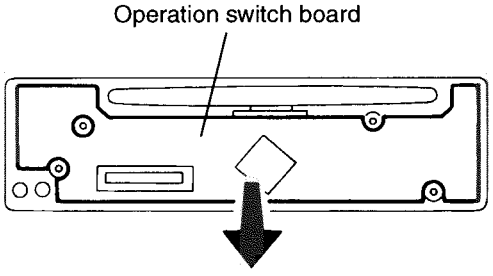


Fig.9

[CD Mechanism Section]

■ Removing the CD mechanism control

1. Remove the CD mechanism assembly (See "Removing the CD mechanism assembly").

2. Remove the three springs a and b from behind the CD mechanism assembly (See Fing.10).

3. Disc connect the flexible wire connected to the connector on the CD mechanism control P.C.board (See Fig.10).

4. Remove the one screw A retaining the CD mechanism control P.C.board (See Fig. 11).

5. After disengaging the engagement between the notch section c and frame,remove the CD mechanism Control P.C .board successively from ① through to ③ in the arrow direction as shown in Fig. 11.

   CAUTION: Whenever the flexible wire is disconnected, be sure to remove the soldering in advance as shown in Fig.12. Otherwise , the CD mechanism assembly can possibly be damaged.

6. Remove the two screws B retaining the front bracket for fixing the CD mechanism control P. C. board (See Fig.10).

   CAUTION: Remove the front bracket from the frame while expanding both sides of the frame as shown in Fig.14

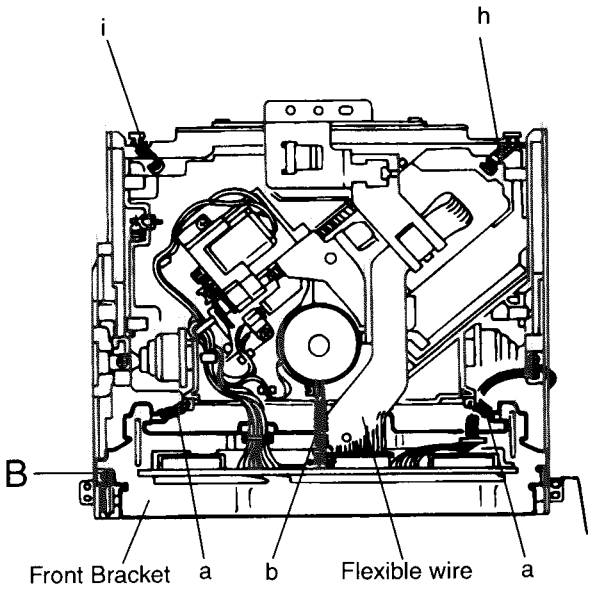


Fig.10

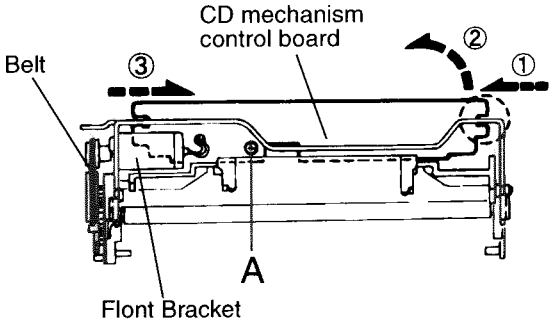


Fig.11

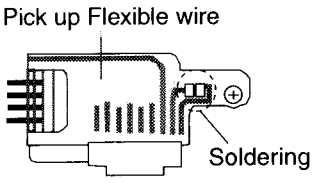


Fig.12

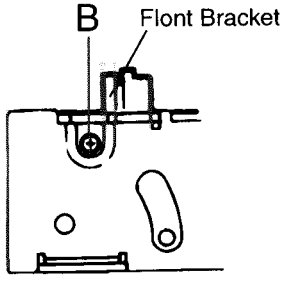


Fig.13

■ Removing the loading motor

1. Remove the belt from the loading motor.
(See FIg.14 and Fig.15)

2. Remove the one screw C retaining the loading motor.
(See Fig.15)

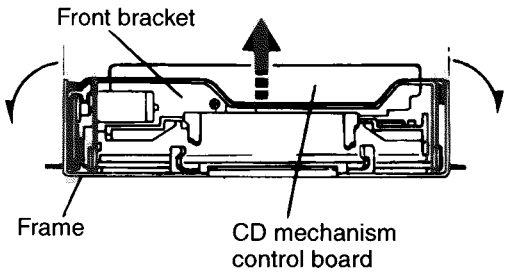


Fig.14

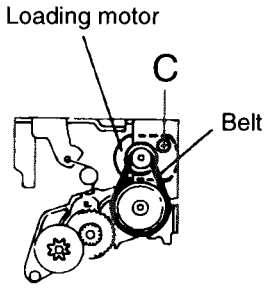


Fig.15

■ Removing the CD mechanism assembly

1. Remove the two screws D retaining the bracket for fixing the damper. (See Fig.16)

2. When shining the fix places on the right and left Sides respectively to the arrow direction, lower the entire CD mechanism. When the shafts (d, e, f and g) on both the right and left sides have been set free as shown in Fig.17 and Fig.18, then the assembly can be removed easily.Remove the two screws E retaining the rear damper bracket to make it easier to remove the damper from the rear damper bracket (See Fig.10, Fig.17 and Fig.18).

3. Remove the two springs h and i as shown in Fig.10 and Fig 16.

4. While removing the right and left sides of the rear damper brackets and dampers While expanding both sides of the CD mechanism,disassmble the entire CD mechanism.

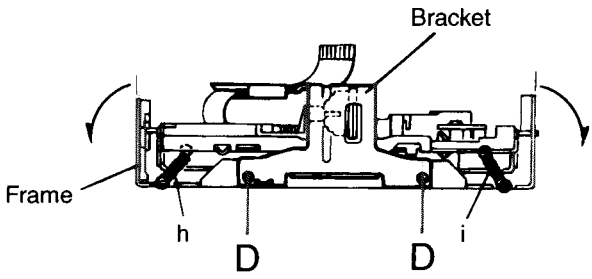


Fig.16

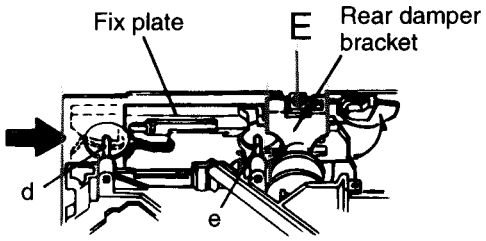


Fig.17

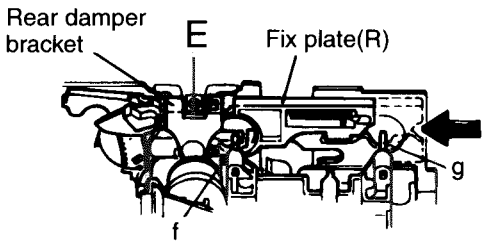


Fig.18

5. While tuning the pickup gear in the arrow direction as shown in Fig.20, shift the entire pickup unit.

6. Remove the three screws F retaining the feed motor assembly and take out this motor assembly (See Fig.19).

7. While pressing and expanding the spring section holding the FD screw in the arrow direction,remove the FD screw and dismount the pickup unit (See Fig.21).

8. By removing the two screw G retaining the pickup unit,dismount the nut push spring plate and pickup mount nut (See Fig.22).

9. Remove the FD screw from the pickup unit (See Fig.22).

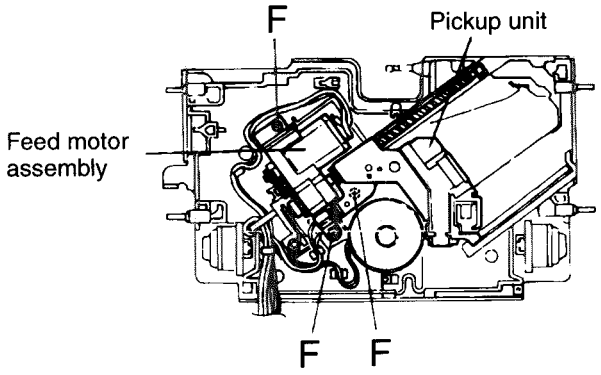


Fig.19

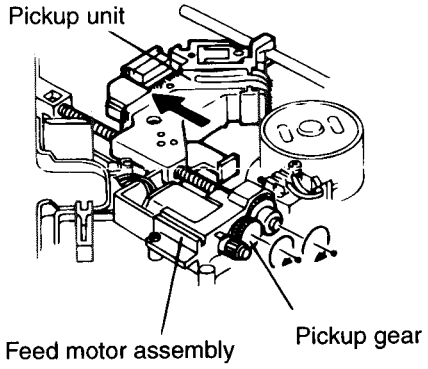


Fig.20

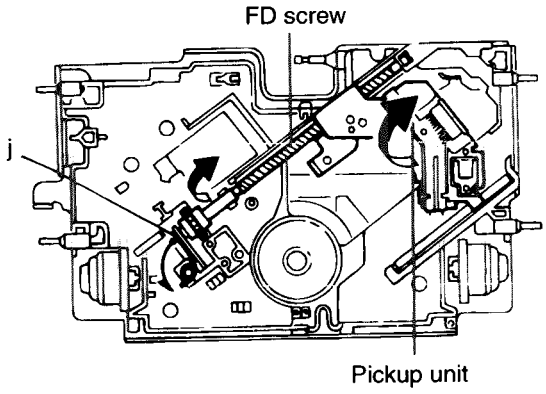


Fig.21

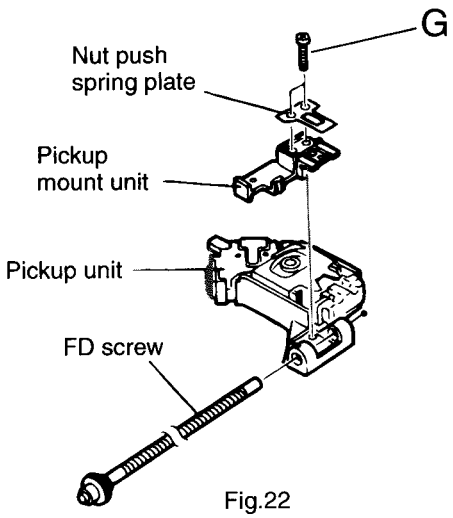


Fig.22

■ Removing the spindle motor

1. After turning back the CD mechanism to initial position,remove the two springs k and i on both the right and left sides of the clamper arm
(See Fig.23 and Fig.24).

2. While turning the turntable,remove the two screws H retaining the spindle motor and take out the spindle motor
(See Fig.25).

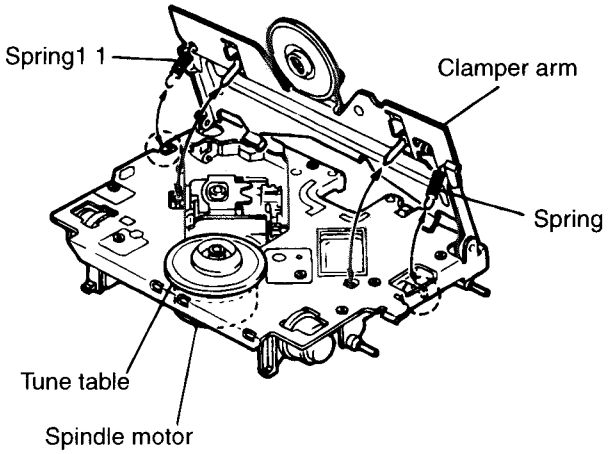


Fig.23

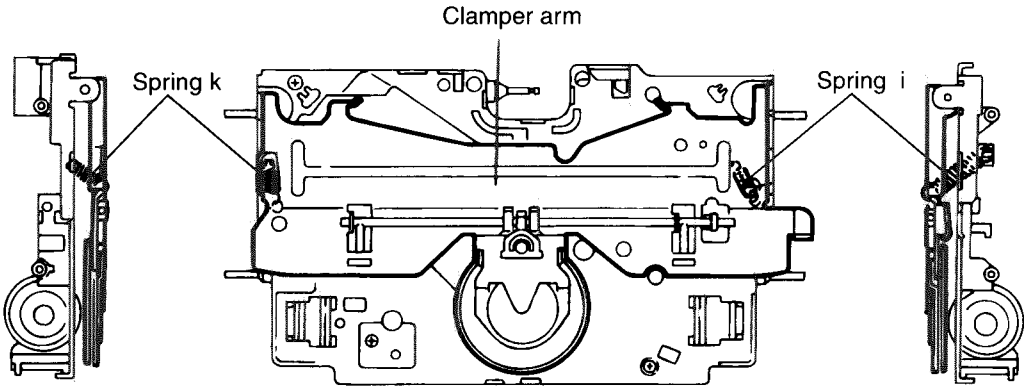


Fig.24-a Fig.24 Fig.24-b

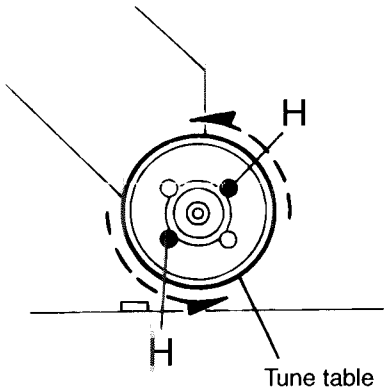


Fig.25

Adjustment Method

■ Test Instruments required for adjustment

1. Digital osc oscilloscope (100MHz)
2. AM Standard signal generater
3. FM Standard signal generater
4. Stereo modulator
5. Electric voltmeter
6. Digital tester
7. Tracking offset meter
8. Test Disc JVC :CTS1000
9. Extension cable for check
   EXTGS003-14P×2

■ Standard measuring conditions

Power supply voltage DC14.4V(10.5~16V)
Load impedance 4Ω(2 Speakers connection)
Line out 20kΩ

■ Standard volume position

Balance and Bass &Treble volume : Indication"0"
Loudness : 0ff

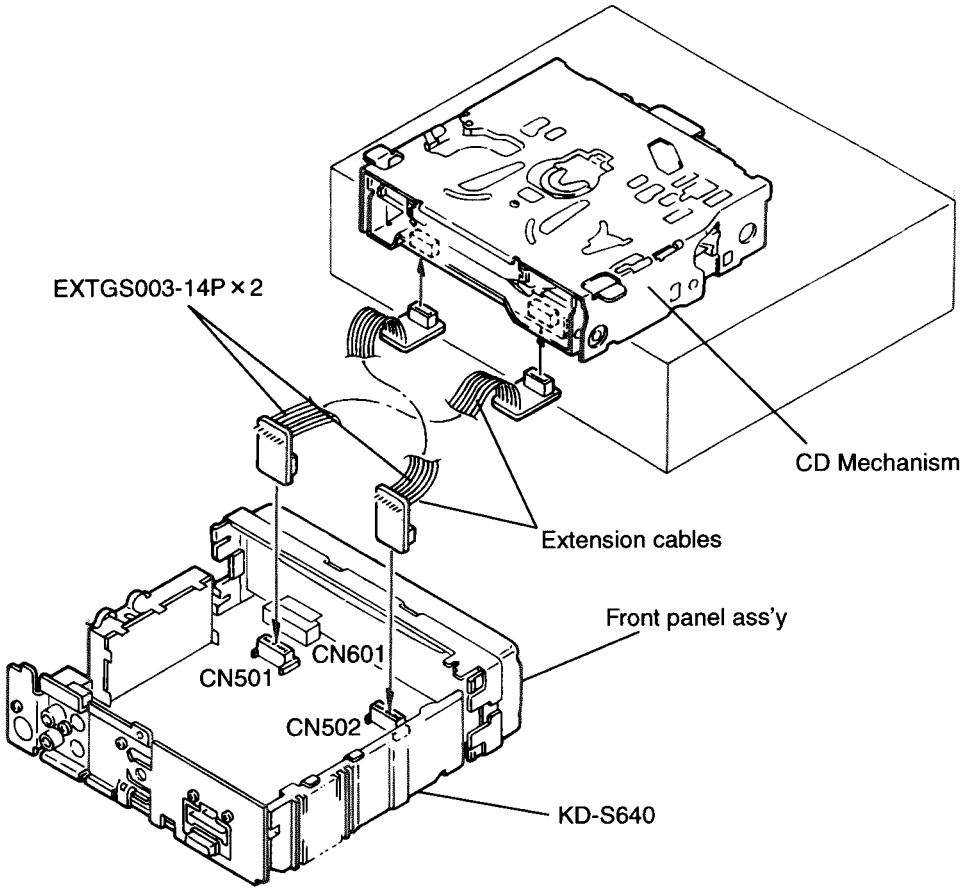
■ Frequency Band

Band	Area suffix		Step
FM	J	87.5~107.9MHz	200kHz step
	U	87.5~108MHz	50kHz step
MW	J	530~1710kHz	10kHz step
	U	531~1602kHz	9kHz step

Dummy load

Exclusive dummy load should be used for AM,and FM.F or FM dummy load,there is a loss of 6dB between SSG output and antenna input.The loss of 6dB need not be considered since direct reading of figures are applied in this working standard.

■ How to connection the extension cable for adjusting



Flow of Functional Operation Until TOC Read

Power ON → Power Key → Slider turns REST SW ON.

Check Point: Check that the voltage at the pin11 of CN502 is 0V (a moment)?

Automatic tuning of TE offset

Laser ON

Check that the voltage at the pin3 of IC501 is + 5V?

Detection of disc

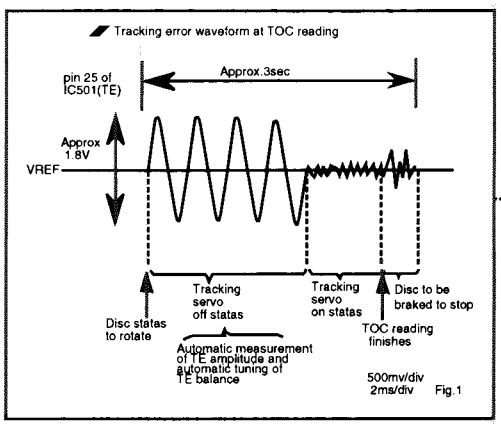
Automatic tuning of Focus offset

Automatic measurement of Focus A-curve amplitude

Confirm that the Focus error S-curve signal at the pin27 of IC501 is approx.2Vp-p

Disc is rotated

Confirm that the signal from pin24 IC561 is 0V as a accelerated pulse during approx.400ms.



Focus servo ON (Tracking servo ON)

Automatic measurement of Tracking error amplitude

Confirm the waveform of the Tracking error signal at the pin25 of IC501 (See fig-1)

Automatic tuning of Tracking error balance

Automatic tuning of Focus error balance

Automatic tuning of Focus error gain

Automatic tuning of Tracking error gain

TOC reading

Confirm the eys-pattern at the lead of TP1(ARF)

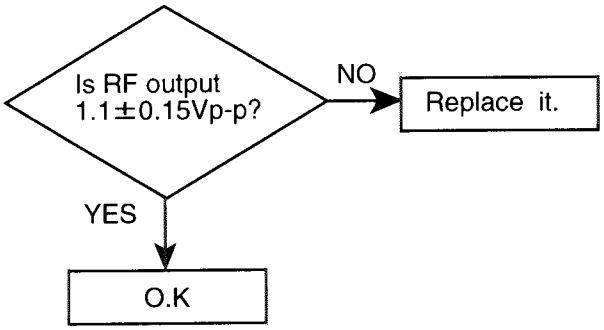
Play a disc

Maintenance of Laser Pickup

(1) Cleaning the pick up lens
Before you replace the pick up, please try to clean the lens with alcohol soaked cotton swab.

(2) Life of the laser diode (Fig.1)
When the life of the laser diode has expired, the following symptoms will appear.

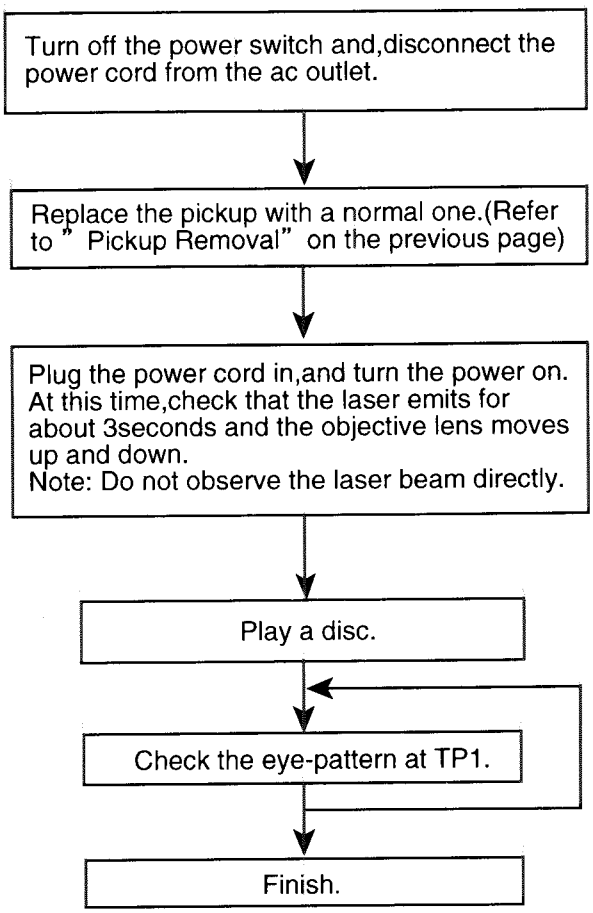
(3) The level of RF output (EFM output:amplitude of eye pattern) will be low.



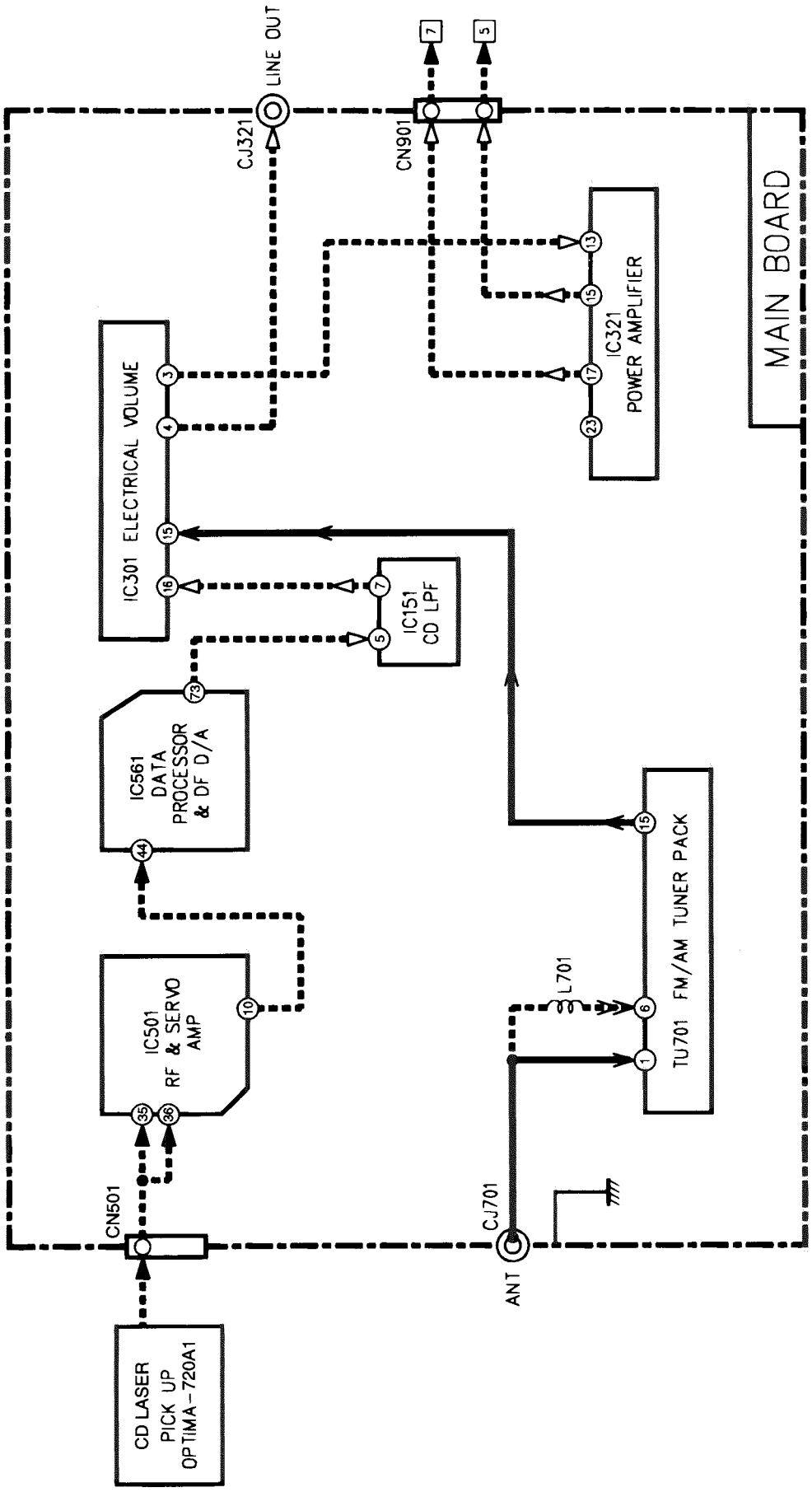
(Fig.1)

Replacement of Laser Pickup

(3) Semi-fixed resistor on the APC PC board
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power.Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.
If the laser power is lower than the specified value,the laser diode is almost worn out, and the laser pickup should be replaced.
If the semi-fixed resistor is adjusted while the pickup is functioning normally,the laser pickup may be damaged due to excessive current.



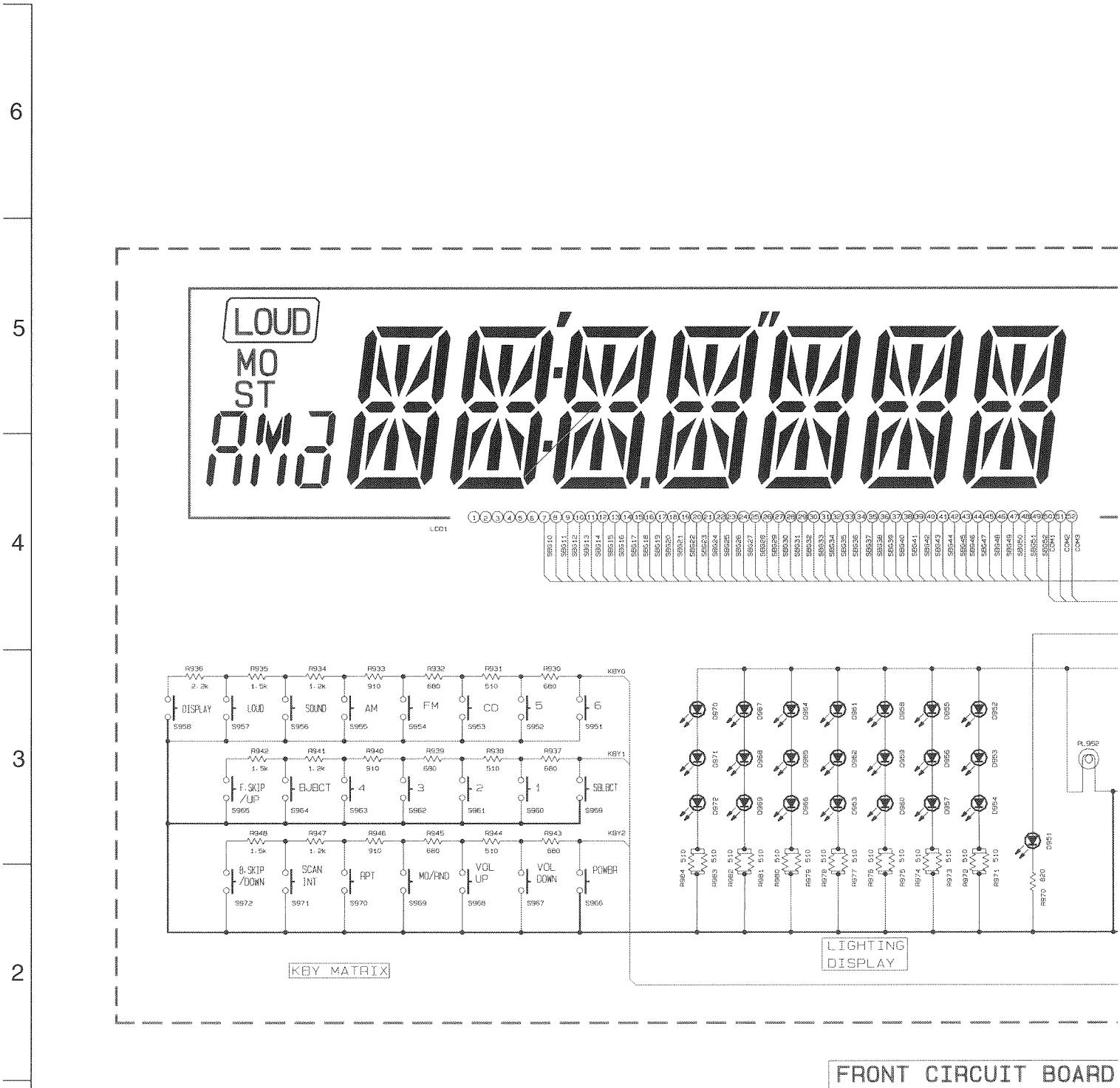
Block Diagram



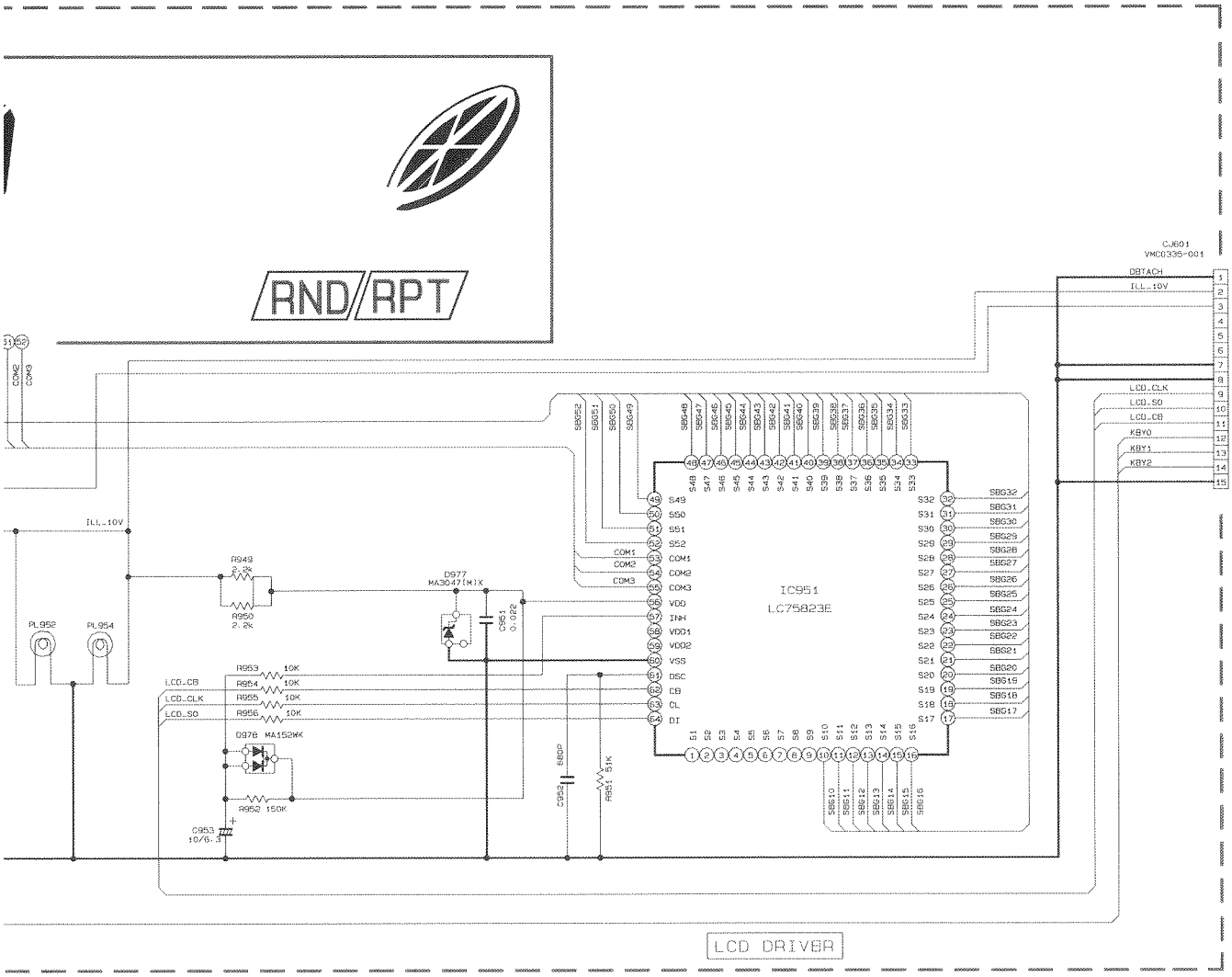
<<MEMO>>

Standard Schematic Diagrams

■ LCD Driver & Operation Switch Circuit



FRONT CIRCUIT BOARD

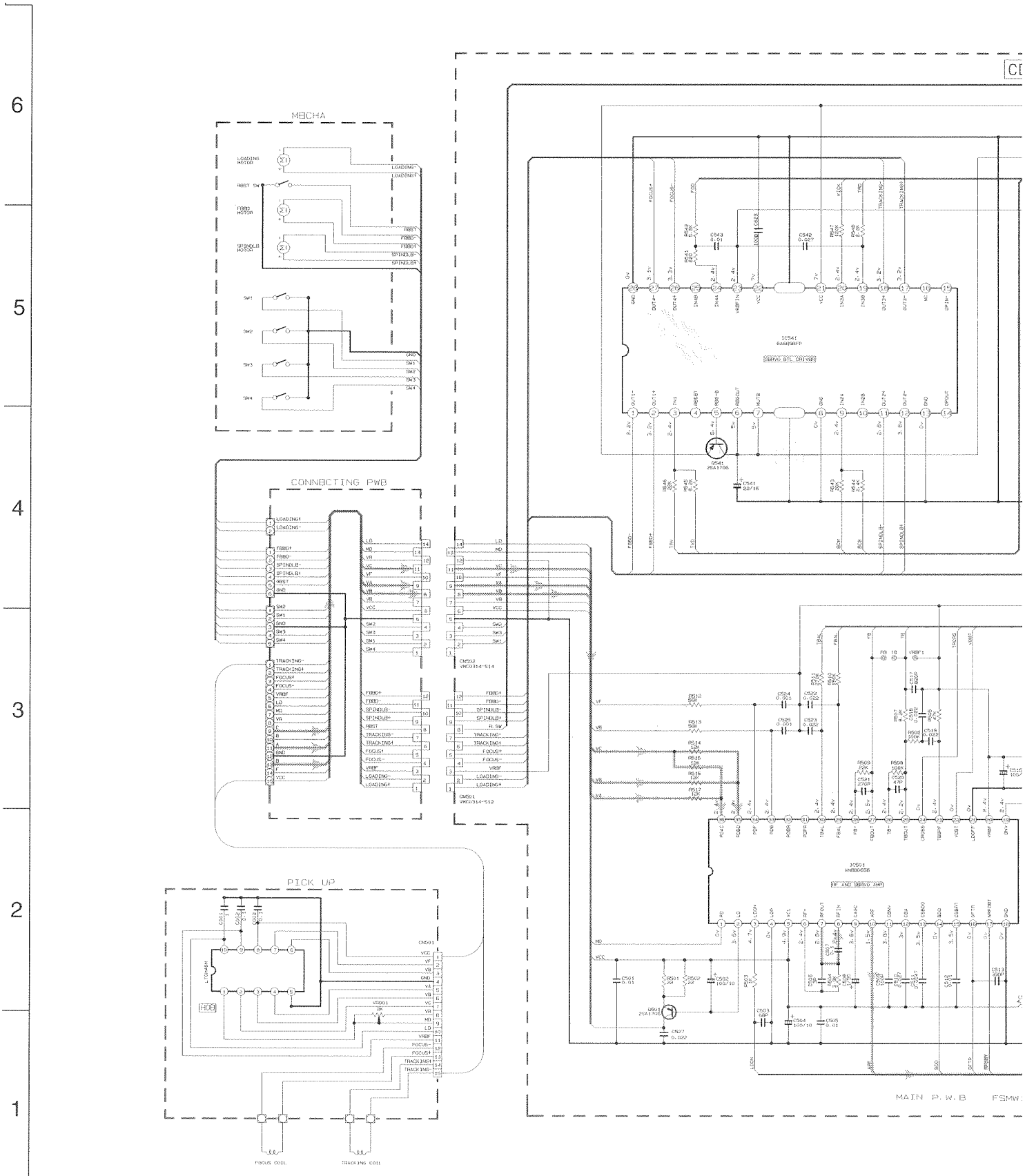


OARD SECTION

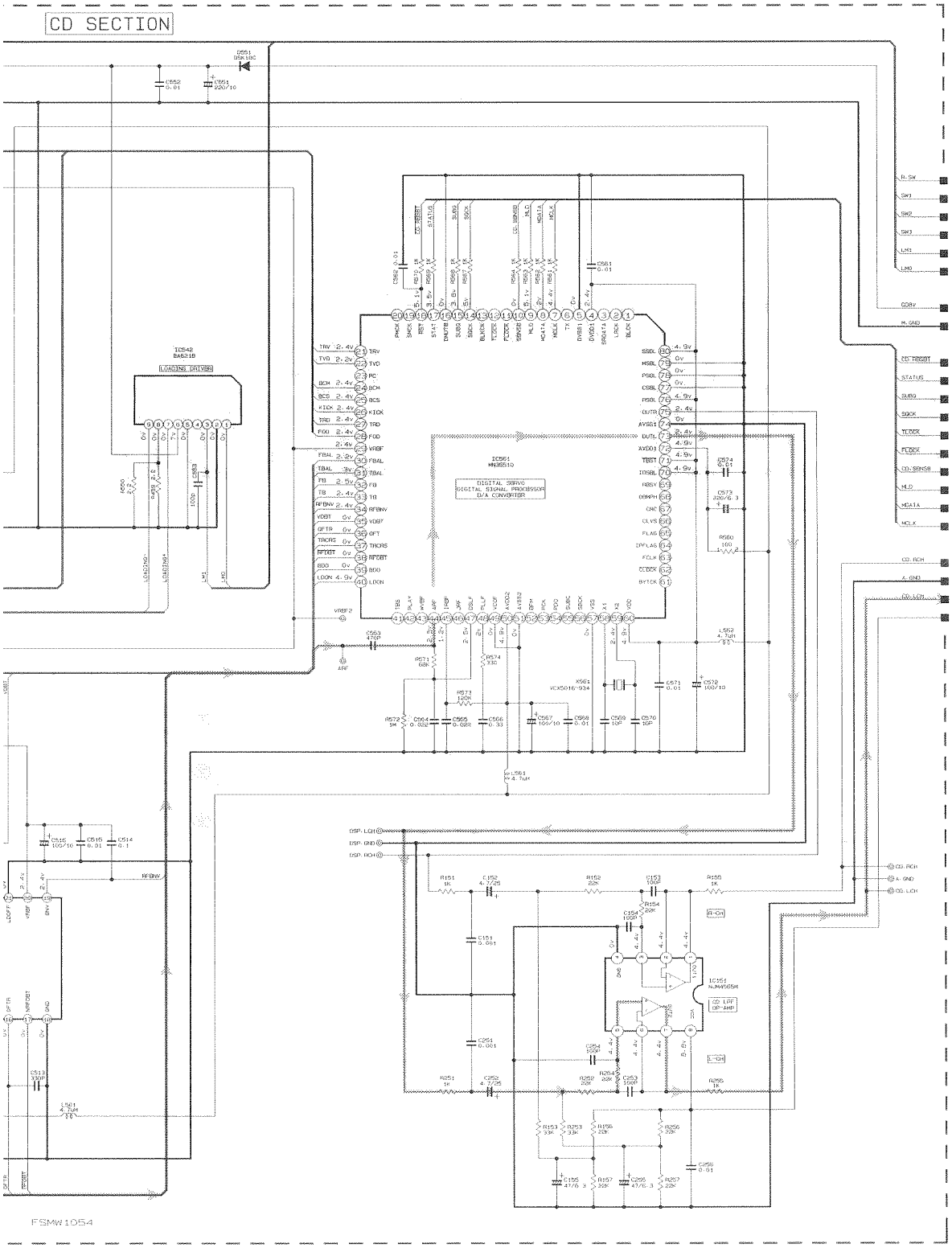
REF. NO.	PART NO.
S951 - S972	NSW0039-001X
D952 - D972	SML-210FT/JKL/W
D951	SML-210LT/LM/-X
PL952, PL954	KD-S640J/U QLL0033-001
LCD1	KD-S640J/U QLD0053-001

E | F | G | H | I

■ CD Mechanism Control Circuit

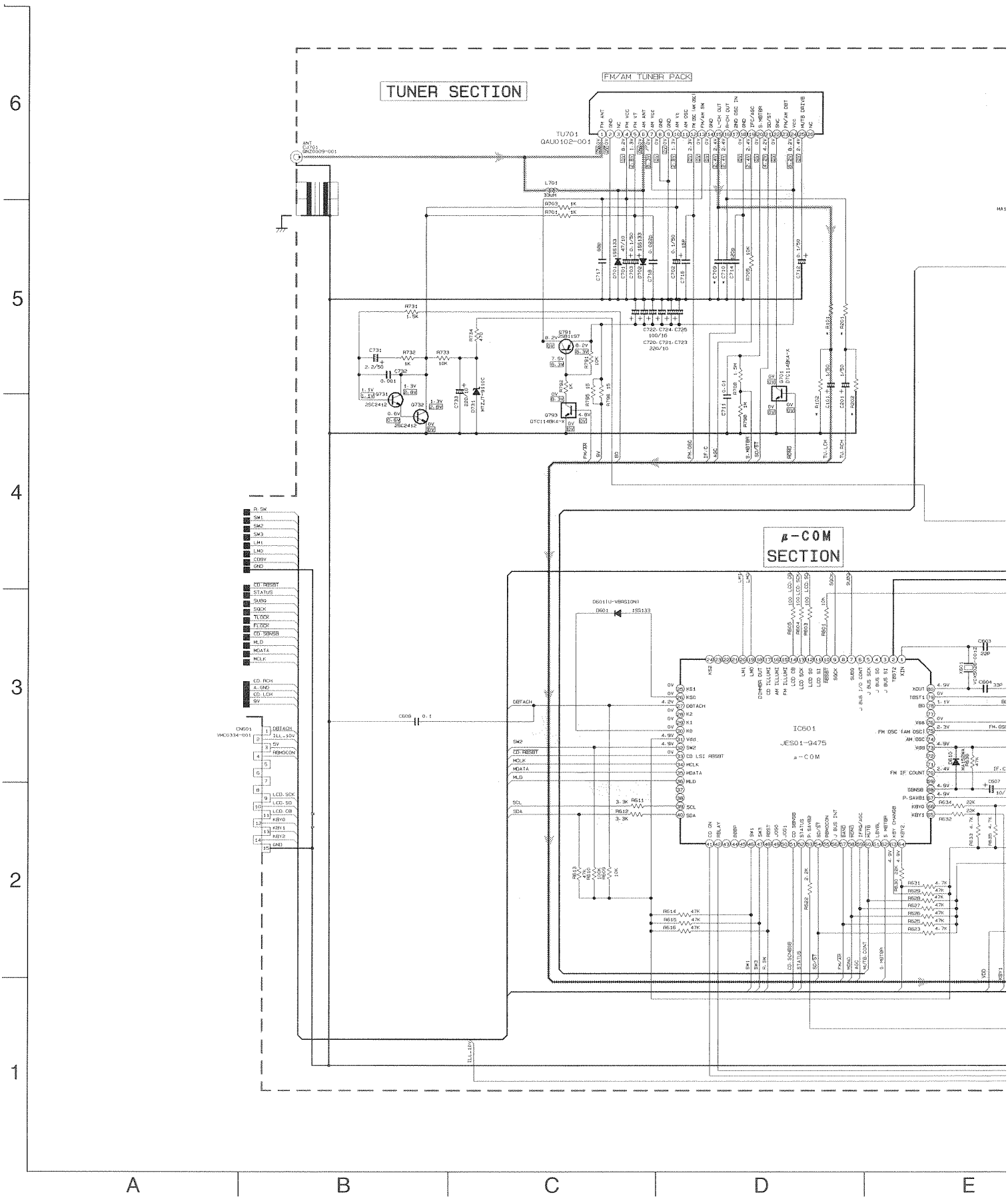


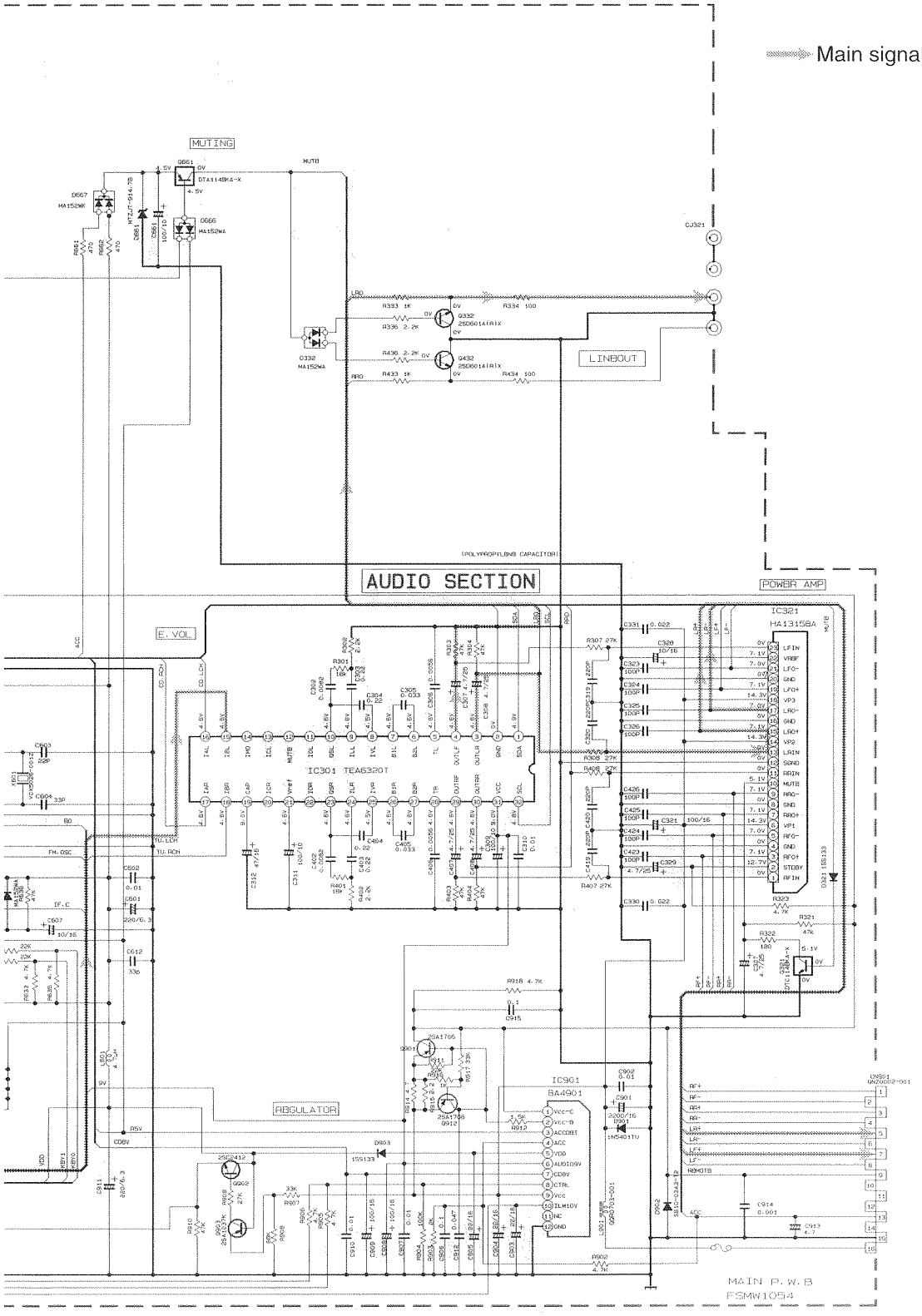
KD-S640



E | F | G | H | I

■ Reciever & Power Amplifier Circuit



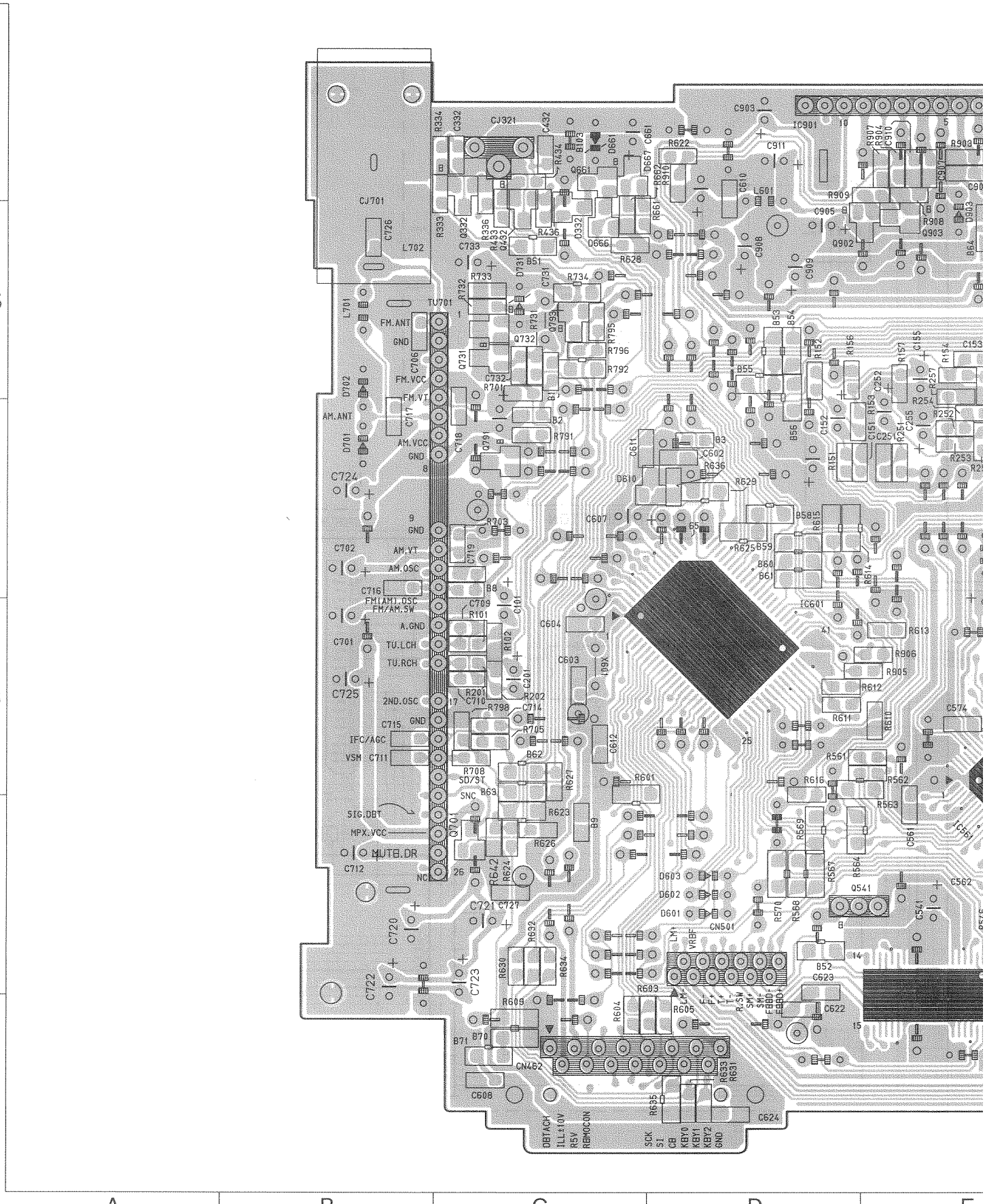


REMARK	J	U
C709-C710	0.027	0.022
R101-R201	3.9K	2K
D501	NOT USED	USED

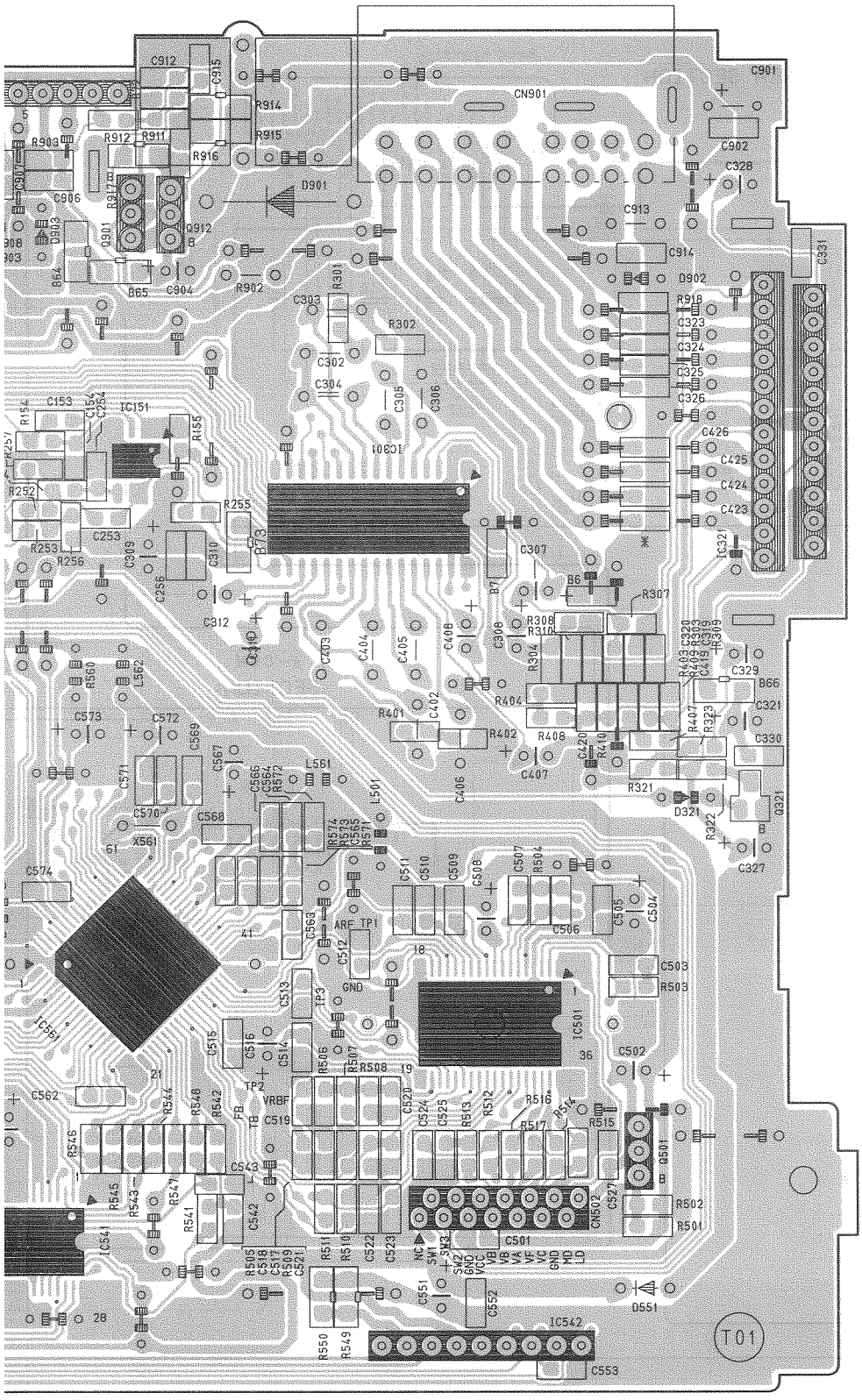
NOTES : 1. VOLTAGE ARE DC MEASURED WITH A DIGITAL VOLTMETER WITHOUT INPUT SIGNAL CONDITION
FM [ ] AM MODE

Printed Circuit Boards

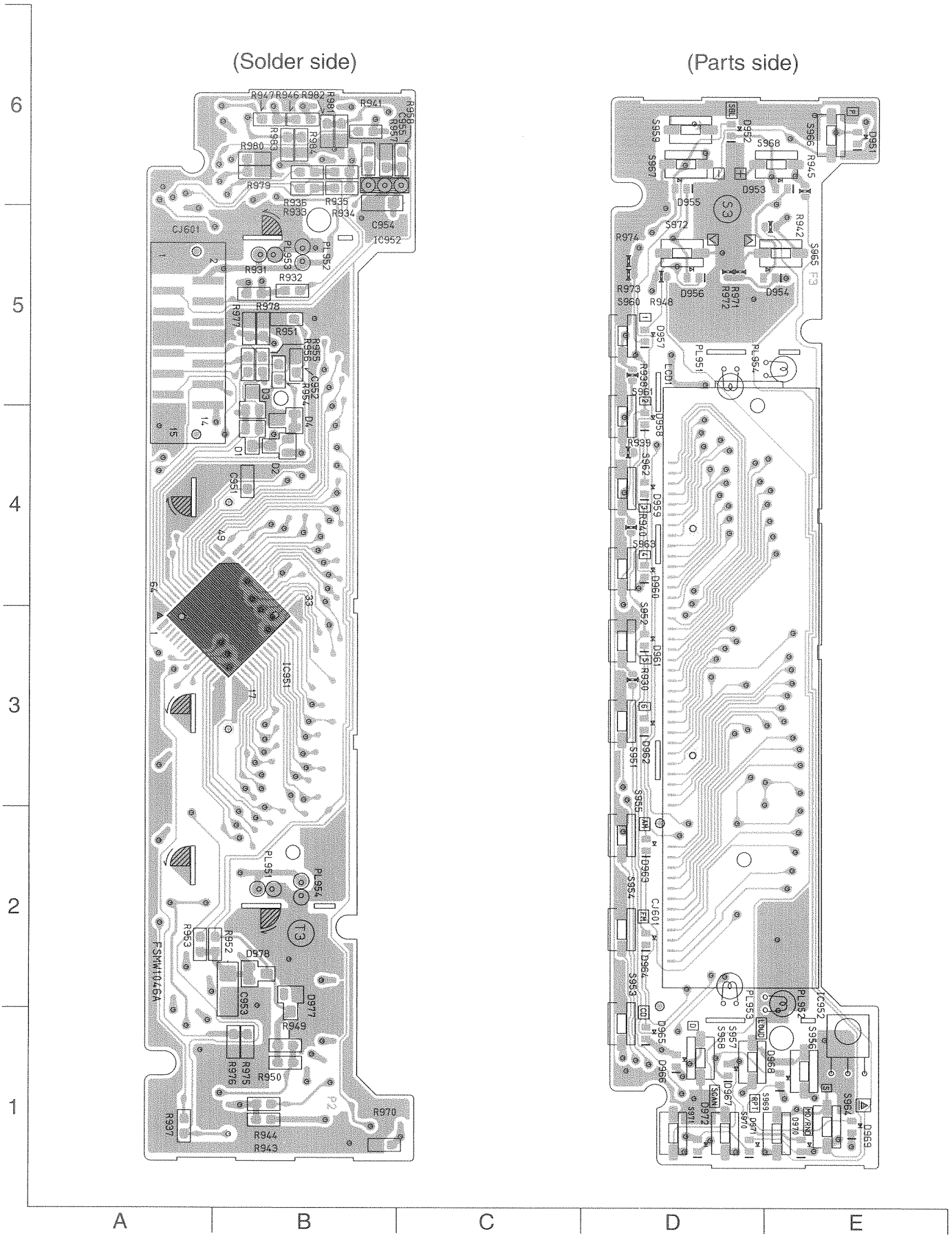
■ Main Board : Block No. 01



KD-S640


C912
C915
R914
R915
R916
R912
R911
R903
C906
D901
Q912
C904
R902
C901
CN901
C902
C328
C913
C914
D902
C331
R918
C323
C324
C325
C326
R301
C303
R302
C302
C304
C305
C306
IC301
C426
C425
C424
C423
IC32
C307
B6
R307
R308
R310
C308
R304
C329
B66
C321
C330
C153
C154
C254
IC151
R154
R155
R257
R252
R255
C253
R253
R256
C309
C310
C256
C312
B73
B7
C403
C404
C405
C408
R560
L562
C573
C572
C569
C567
C571
C566
C564
R572
L561
L501
C570
C568
X561
R574
R573
C565
R571
C574
C511
C510
C509
C507
R504
C508
C506
C505
C504
C503
R503
C502
C501
IC501
C562
R544
R548
R542
R546
C520
C524
C525
R513
R512
R516
R517
R514
R515
Q501
R502
R501
C527
CN502
C543
R545
R543
R547
R541
C544
C542
C518
C517
R509
C521
R511
R510
C522
C523
C551
C552
D551
IC542
C553
R550
R549
TP1
TP2
TP3
GND
VRBF
FB
TB
NC
SW1
SW2
SW3
VCC
VR
VR
VF
VF
GND
LD
T01

■ LCD & Switch Board : Block No. 02



<<MEMO>>

PARTS LIST

[KD-S640]

* All printed circuit boards and its assemblies are not available as service parts.

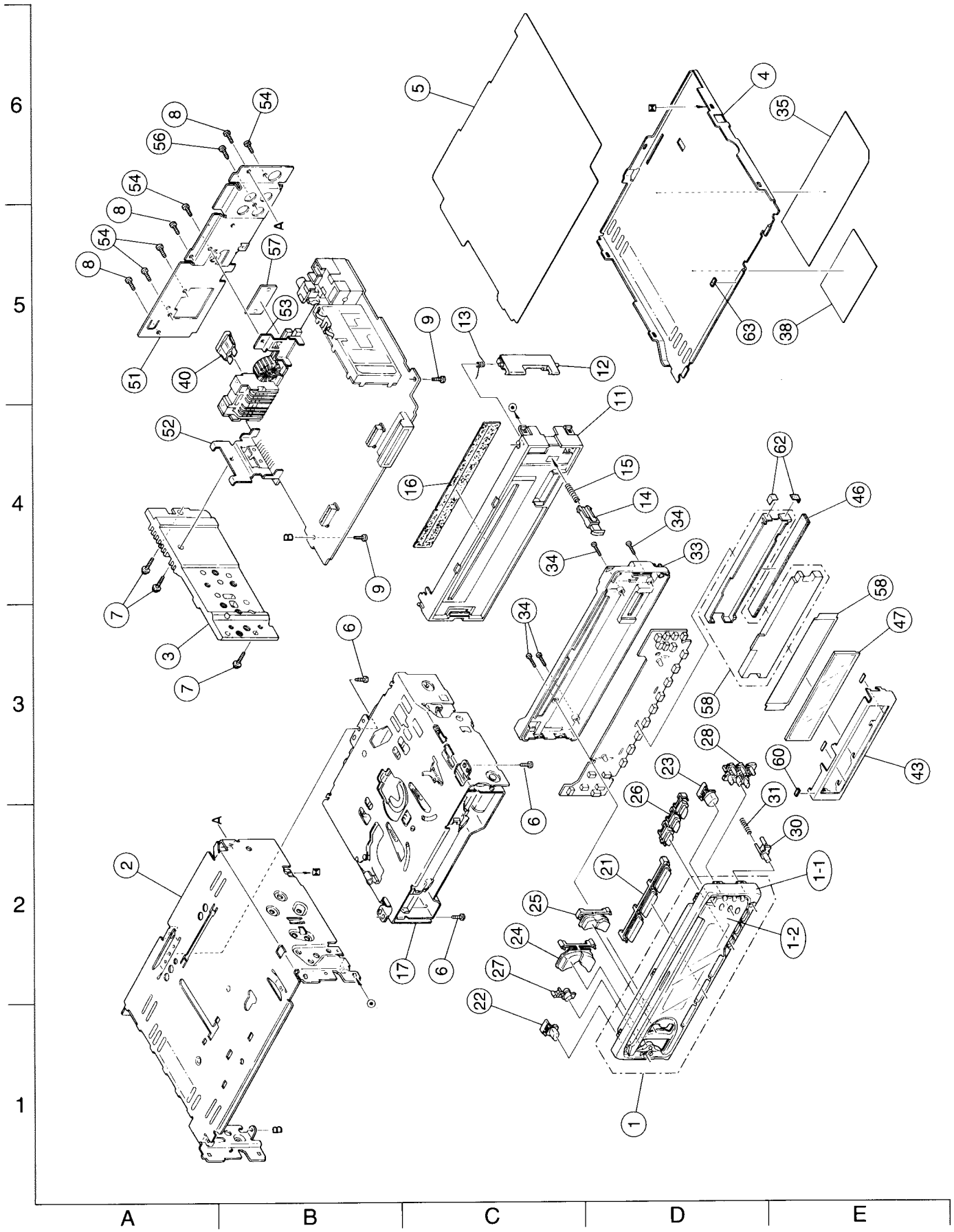
Area Suffix

J ---- Northern America

- Contents -

General Exploded View and Parts List

Block No. M1MM



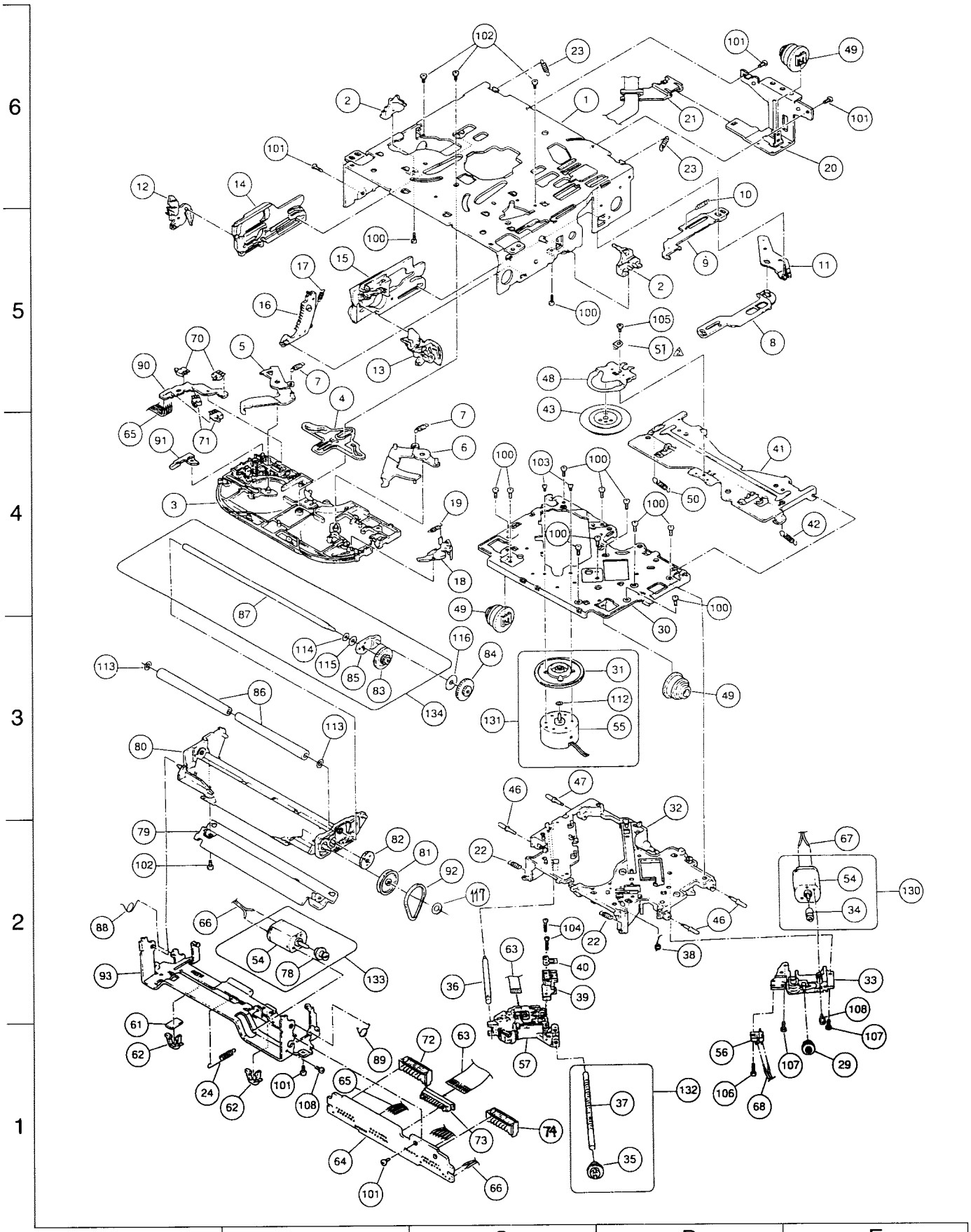
■ Parts List

BLOCK NO. M1MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	ZCKDS640J-NPA	NOSE PIECE		1		
	1-1	FSJC1034-002	FRONT PANEL		1		
	1-2	FSJD3010-00H	FINDER ASS'Y		1		
	2	FSJC1029-021	TOP CHASSIS		1		
	3	FSMH3001-002	HEAT SINK		1		
	4	FSKM3011-001	BOTTOM COVER		1		
	5	FSMA3004-003	INSULATOR		1		
	6	QYSDST2604Z	SCREW	CHASSIS+MECHA B	3		
	7	FSKZ4005-001	SCREW	CHASSIS+SIDE PA	3		
	8	QYSDST2606Z	SCREW	CHASSIS+REAR BK	3		
	9	QYSDST2606Z	SCREW	CHASSIS+MAIN PW	2		
	11	FSJC2010-002	FRONT CHASSIS		1		
	12	FSKS3004-202	LOCK LEVER		1		
	13	FSKW4005-003	TORSION SPRING	FOR LOCK LEVEL	1		
	14	FSXP3026-002	RLS KNOB		1		
	15	FSKW3002-004	COMP.SPRING		1		
	16	FSPK3009-001	BLIND		1		
	17	----------	CD MECHA		1		
	21	FSXP2025-001	PRESET BUTTON		1		
	22	FSXP3044-002	POWER BUTTON		1		
	23	FSXP3043-002	EJECT BUTTON		1		
	24	FSXP2033-001	+/- BUTTON		1		
	25	FSXP2026-002	UP/DOWN BUTTON		1		
	26	FSXP2029-002	D.FUNC BUTTON		1		
	27	FSXP3040-001	SEL BUTTON		1		
	28	FSXP2030-201	PUSH BUT(SLANT)		1		
	30	FSXP3049-002	DETACH BUTTON		1		
	31	FSKW3002-008	COMP.SPRING	FOR DETACH BUTT	1		
	33	FSJC1035-002	REAR COVER		1		
	34	VKZ4777-001	MINI SCREW	FRONT+REAR	4		
	35	FSYN3069-006	NAME PLATE		1		
	38	VND4922-009	CAUTION LABEL	FOR USA ONLY	1		
	40	QMFZ021-100-J1	FUSE		1		
	43	FSYH3013-001	LCD CASE		1		
	46	QNZ0089-001	RUBBER CONNE		1		
	47	QLD0063-001	LCD	LCD1	1		
	51	FSKM3010-003	REAR BRACKET		1		
	52	FSKL4018-00A	IC BRACKET		1		
	53	FSKL4015-002	REG BRACKET		1		
	54	QYSDST2606Z	SCREW		4		
	56	QYSDSF3006Z	SCREW		1		
	57	FSKL4014-001	HEAT SINK		1		
	58	FSYH4048-003	SHEET		1		
	60	FSYH4036-017	SHEET		1		
	61	FSKS3007-00A	LENS CASE ASS'Y		1		
	62	FSYH4036-015	SHEET		2		
	63	FSYH4036-018	SHEET		1		

CD Mechanism Exploded View and Parts List

Block No. M2MM



■ Parts List

BLOCK NO. M2MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	30310101T	FRAME		1		
	2	30310103T	DANPER PIN		2		
	3	30310107T	UPPER PLATE		1		
	4	30310108T	SEL STOP PLATE		1		
	5	30310109T	SEL ARM (L)		1		
	6	30310110T	SEL ARM (R)		1		
	7	30310133T	S ARM SPRING		2		
	8	30310112T	TRIG LEVER		1		
	9	30310114T	TRIG PLATE		1		
	10	30310115T	TRIG PL SPRING		1		
	11	30310116T	TRIG ARM		1		
	12	30310117T	FIX ARM (L)		1		
	13	30310118T	FIX ARM (R)		1		
	14	30310119T	FIX PLATE (L)		1		
	15	30310120T	FIX PLATE (R)		1		
	16	30310121T	LDG GEAR (6)		1		
	17	30310122T	LDG GEAR (6)SP		1		
	18	30310124T	S.L ARM		1		
	19	30310125T	S.L ARM SPRING		1		
	20	30310126T	REAR DAM BKT(J)		1		
	21	30310127T	FPC GUIDE		1		
	22	30310128T	HUNG UP SP (F)		2		
	23	30310129T	HUNG UP SP (R)		2		
	24	30310130T	LEVEL SPRING		1		
	29	30300510T	PU GEAR(B)		1		
	30	30310501T	TTB		1		
	31	----------	TURN TABLE		1		
	32	30310503T	FMB		1		
	33	30310504T	FD GR BRACKET		1		
	34	----------	FD GEAR (A)		1		
	35	----------	FD GEAR (C)		1		
	36	30310538T	PU SHAFT		1		
	37	----------	FD SCREW		1		
	38	30310510T	THRUST SPRING		1		
	39	30310511T	PU M NUT		1		
	40	30310512T	NUT PUSH SPR PL		1		
	41	30310513T	CLP ARM		1		
	42	30310514T	CLP ARM SPRING		1		
	43	30310515T	CLAMPER		1		
	46	30310521T	LOCK PIN		3		
	47	30310522T	LOCK PIN BL		1		
	48	30310523T	CLAMPER PLATE		1		
	49	30310524T	DAMPER (J)		3		
	50	30310525T	CLP ARM SPR (L)		1		
	51	30310536T	STOPPER SPRING		1		
	54	----------	FEED MOTOR	FF030PK-09210	4		
	55	----------	SPINDLE MOTOR		1		
	56	64180404T	DET SWITCH	ESE11HS2	1		
	57	OPTIMA-720A1	CD.PICK UNIT		1		
	61	11050210T	FELT		1		
	62	19501403T	WIRE CLAMPER		2		
	63	30311019T	PICK UP FPC(J)		1		
	64	30311018T	CONNECTER PCB(J		1		
	65	30311022T	WIRE (5P-J)		1		

BLOCK NO. M2MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	66	30311023T	WIRE (LD-J)		1		
	67	30311006T	WIRE (FD)		1		
	68	30311007T	WIRE (RS)		1		
	70	64180402T	DET SWITCH	ESE22MH1	2		
	71	64180403T	DET SWITCH	ESE22MH3	2		
	72	68150235T	CONNECTOR	TKC-F14P-J3	1		
	73	68170224T	CONNECTOR(15P)	6208010115	1		
	74	68150237T	CONNECTOR(12P)		1		
	78	----------	LDG PULLEY		1		
	79	30311105T	SOPPORT PLATE		1		
	80	30311108T	GR MT BLK		1		
	81	30311109T	LDG GEAR (2)		1		
	82	30311110T	LDG GEAR (3)		1		
	83	----------	LDG GEAR (4)		1		
	84	30311112T	LDG GEAR (5)		1		
	85	----------	LDG GR ARM		1		
	86	30311131T	LDG ROLLER		2		
	87	----------	LDG RLR SHAFT		1		
	88	30311118T	L.P SPRING (L)		1		
	89	30311119T	L.P SPRING (R)		1		
	90	30311123T	SW PCB		1		
	91	30311124T	SW ACTUATOR		1		
	92	30311129T	LDG BELT		1		
	93	30311130T	FRONT BRKT (J)		1		
	100	9C0620503T	C B TAP SCREW	M2X5	11		
	101	9C2020401T	C SCREW TS.G	M2X4	5		
	102	9C4320403T	C B TAP SCREW	M2X4	4		
	103	9C0117223T	SCREW	M1.7X2.2	2		
	104	9C0317803T	C SCREW	M1.7X8	2		
	105	9C4220201T	C TAP SCREW S3	M2X2	1		
	106	9C4420003T	C TAP SCREW B3	M2X10	1		
	107	9C4420503T	C TAP SCREW B3	M2X5	2		
	108	9P0220031T	TAMS SCREW	M2X4	2		
	112	----------	POLY WASHER		1		
	113	9W0330276T	POLY WASHER	2.9X5X0.3	2		
	114	----------	WAVE WASHER		1		
	115	----------	LUMILAR WASHER		1		
	116	9W0725030T	LUMILAR W		1		
	117	9W0640030T	WASHER		1		
	130	303105301T	FFED MOTOR ASSY	NO.34,54	1		
	131	303105302T	SP MOTOR ASSY	NO.31,55,112	1		
	132	303105303T	FEED SCREW ASSY	NO.35,37	1		
	133	303111301T	LDG MOTOR ASSY	NO.54,78	1		
	134	303111302T	RDG RLR SFT ASY	NO.83,85,87	1		

■ Electrical Parts List (Main P.C.B)

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	B 62	NRS181J-OROX	MG RESISTOR	5% 1/8W	
	B 63	NRS181J-OROX	MG RESISTOR	5% 1/8W	
	B 64	NRS181J-OROX	MG RESISTOR	5% 1/8W	
	B 65	NRS181J-OROX	MG RESISTOR	5% 1/8W	
	B 66	NRS181J-OROX	MG RESISTOR	5% 1/8W	
	B 70	NRS181J-OROX	MG RESISTOR	5% 1/8W	
	B 71	NRS181J-OROX	MG RESISTOR	5% 1/8W	
	B 73	NRS181J-OROX	MG RESISTOR	5% 1/8W	
	C 101	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 151	NCS21HJ-102X	C CAPACITOR	1000PF 5% 50V	
	C 152	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 153	NDC21HJ-101X	C.CAPACITOR		
	C 154	NDC21HJ-101X	C.CAPACITOR		
	C 155	QEKJOJM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 201	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 251	NCS21HJ-102X	C CAPACITOR	1000PF 5% 50V	
	C 252	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 253	NDC21HJ-101X	C.CAPACITOR		
	C 254	NDC21HJ-101X	C.CAPACITOR		
	C 255	QEKJOJM-476Z	E CAPACITOR	47MF 20% 6.3V	
	C 256	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 302	QFLA1HJ-822Z	M CAPACITOR	8200PF 5% 50V	
	C 303	QFV41HJ-224	TF CAPACITOR	.22MF 5% 50V	
	C 304	QFV41HJ-224	TF CAPACITOR	.22MF 5% 50V	
	C 305	QFV41HJ-333	TF CAPACITOR	.033MF 5% 50V	
	C 306	QFLA1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C 307	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 308	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 309	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 310	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 311	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 312	QEK41CM-476	E CAPACITOR	47MF 20% 16V	
	C 319	NCS21HJ-221X	C CAPACITOR	220PF 5% 50V	
	C 320	NCS21HJ-221X	C CAPACITOR	220PF 5% 50V	
	C 321	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 323	NCS21HJ-101X	C CAPACITOR	100PF 5% 50V	
	C 324	NCS21HJ-101X	C CAPACITOR	100PF 5% 50V	
	C 325	NCS21HJ-101X	C CAPACITOR	100PF 5% 50V	
	C 326	NCS21HJ-101X	C CAPACITOR	100PF 5% 50V	
	C 327	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 328	QEK41CM-106	E CAPACITOR	10MF 20% 16V	
	C 329	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 330	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 331	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 402	QFLA1HJ-822Z	M CAPACITOR	8200PF 5% 50V	
	C 403	QFV41HJ-224	TF CAPACITOR	.22MF 5% 50V	
	C 404	QFV41HJ-224	TF CAPACITOR	.22MF 5% 50V	
	C 405	QFV41HJ-333	TF CAPACITOR	.033MF 5% 50V	
	C 406	QFLA1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C 407	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 408	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 419	NCS21HJ-221X	C CAPACITOR	220PF 5% 50V	
	C 420	NCS21HJ-221X	C CAPACITOR	220PF 5% 50V	
	C 423	NCS21HJ-101X	C CAPACITOR	100PF 5% 50V	
	C 424	NCS21HJ-101X	C CAPACITOR	100PF 5% 50V	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 425	NCS21HJ-101X	C CAPACITOR	100PF 5% 50V	
	C 426	NCS21HJ-101X	C CAPACITOR	100PF 5% 50V	
	C 501	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 502	QER41AM-107	E CAPACITOR	100MF 20% 10V	
	C 503	NCS21HJ-680X	C.CAPA. C.M	68PF 5% 50V	
	C 504	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 505	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 506	NDC21HJ-3R0X	C CAPACITOR		
	C 507	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 508	QEK41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 509	NDC21HJ-101X	C.CAPACITOR		
	C 510	NCB21HK-273X	C CAPACITOR	.027MF 10% 50V	
	C 511	NCB21HK-472X	C CAPACITOR	4700PF 10% 50V	
	C 512	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 513	NDC21HJ-331X	C CAPACITOR		
	C 514	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 515	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 516	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 517	NCS21HJ-821X	C CAPACITOR	820PF 5% 50V	
	C 518	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 519	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 520	NDC21HJ-470X	C CAPACITOR		
	C 521	NCS21HJ-271X	C CAPACITOR	270PF 5% 50V	
	C 522	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 523	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 524	NCB21HK-102X	C CAPACITOR	1000PF 10% 50V	
	C 525	NCB21HK-102X	C CAPACITOR	1000PF 10% 50V	
	C 527	NCB21EK-223X	C CAPACITOR	.022MF 10% 25V	
	C 541	QEK41CM-226	E CAPACITOR	22MF 20% 16V	
	C 542	NCB21HK-273X	C CAPACITOR	.027MF 10% 50V	
	C 543	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 551	QER41AM-227	E CAPACITOR	220MF 20% 10V	
	C 552	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 553	NCS21HJ-101X	C CAPACITOR	100PF 5% 50V	
	C 561	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 562	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 563	NCB21HK-471X	C CAPACITOR	470PF 10% 50V	
	C 564	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 565	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 566	NCB21CK-334X	C.CAPA. C.M	.33MF 10% 16V	
	C 567	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 568	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 569	NDC21HJ-100X	C.CAPA. C.M		
	C 570	NDC21HJ-100X	C.CAPA. C.M		
	C 571	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 572	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 573	QEK40JM-227	E CAPACITOR	220MF 20% 6.3V	
	C 574	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 601	QEK40JM-227	E CAPACITOR	220MF 20% 6.3V	
	C 602	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 603	NDC21HJ-220X	C CAPACITOR		
	C 604	NDC21HJ-330X	C CAPACITOR		
	C 607	QEK41CM-106	E CAPACITOR	10MF 20% 16V	
	C 608	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 611	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 612	NDC21HJ-330X	C CAPACITOR		
	C 623	NCS21HJ-101X	C CAPACITOR	100PF 5% 50V	
	C 661	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 701	QERF1AM-476Z	E CAPACITOR	47MF 20% 10V	
	C 702	QEK41HM-104	E CAPACITOR	.10MF 20% 50V	
	C 703	QEK41HM-104	E CAPACITOR	.10MF 20% 50V	
	C 709	NCB21HK-273X	C CAPACITOR	.027MF 10% 50V	
	C 710	NCB21HK-273X	C CAPACITOR	.027MF 10% 50V	
	C 711	NCB21EK-103X	C CAPACITOR	.010MF 10% 25V	
	C 712	QEK41HM-104	E CAPACITOR	.10MF 20% 50V	
	C 714	NCS21HJ-121X	C CAPACITOR	120PF 5% 50V	
	C 716	NDC21HJ-150X	C CAPACITOR		
	C 717	NDC21HJ-680X	C CAPACITOR		
	C 718	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 720	QER41AM-227	E CAPACITOR	220MF 20% 10V	
	C 721	QER41AM-227	E CAPACITOR	220MF 20% 10V	
	C 722	QER41AM-107	E CAPACITOR	100MF 20% 10V	
	C 723	QER41AM-227	E CAPACITOR	220MF 20% 10V	
	C 724	QEKJ1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 725	QEKJ1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 727	NDC21HJ-330X	C CAPACITOR		
	C 731	QER41HM-225	E CAPACITOR	2.2MF 20% 50V	
	C 732	NCB21HK-102X	C CAPACITOR	1000PF 10% 50V	
	C 733	QER41AM-227	E CAPACITOR	220MF 20% 10V	
	C 901	QEZ0337-228	E CAPACITOR	2200MF	
	C 902	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 903	QEK41CM-226	E CAPACITOR	22MF 20% 16V	
	C 904	QER41CM-226	E CAPACITOR	22MF 20% 16V	
	C 905	QEK41CM-226	E CAPACITOR	22MF 20% 16V	
	C 906	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 907	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 908	QEKJ1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 909	QEKJ1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 910	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 911	QEK40JM-227	E CAPACITOR	220MF 20% 6.3V	
	C 912	NCB21HK-473X	C CAPACITOR	.047MF 10% 50V	
	C 913	QEQ61EM-475Z	NP E CAPACITOR	4.7MF 20% 25V	
	C 914	NCB21HK-102X	C CAPACITOR	1000PF 10% 50V	
	C 915	NCB21HK-104X	C CAPACITOR	.10MF 10% 50V	
	CJ321	QNN0170-001	PIN JACK (REEL)		
	CJ701	QNZ0009-001	CAR ANT JACK		
	CN501	QGB1214J1-12S	CONNECTOR		
	CN502	QGB1214J1-14S	CONNECTOR		
	CN601	VMC0334-001	CONNECTOR		
	CN901	QNZ0002-001	16P CONNECTOR		
	D 321	1SS254-T2	SI DIODE		
	D 332	MA152WA-X	DIODE		
	D 551	DSK10C-T1	DIODE		
	D 610	MA152WA-X	DIODE		
	D 661	MTZJ4.7B-T2	Z DIODE I M		
	D 666	MA152WA-X	DIODE		
	D 667	MA152WK-X	SI DIODE		
	D 701	1SS254-T2	SI DIODE		
	D 702	1SS254-T2	SI DIODE		
	D 731	MTZJ10C-T2	Z.DIODE I.M		

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	D 901	1N5401-TU-15	DIODE		
	D 902	SB10-03A3-T2	SB DIODE		
	D 903	1SS254-T2	SI DIODE		
	IC151	NJM4565M-WE	IC		
	IC301	TEA6320T-X	IC		
	IC321	HA13158A	IC(M)		
	IC501	AN8806SB-W	IC C.M		
	IC541	BA6898FP-X	IC		
	IC542	BA6218	IC		
	IC561	MN35510	IC		
	IC601	JES01-9475			
	IC901	BA4901A-V3	IC		
	L 501	QQL231K-4R7Y	INDUCTOR		
	L 561	QQL231K-4R7Y	INDUCTOR		
	L 562	QQL231K-4R7Y	INDUCTOR		
	L 601	QQL231K-4R7Y	INDUCTOR		
	L 701	QQL231K-330Y	INDUCTOR		
	L 901	QQR0703-001	CHOKE COIL		
	Q 321	DTC114EKA-X	TRANSISTOR		
	Q 332	2SD601A/R/-X	TRANSISTOR		
	Q 432	2SD601A/R/-X	TRANSISTOR		
	Q 501	2SA1706/ST/-T	TRANSISTOR		
	Q 541	2SA1706/ST/-T	TRANSISTOR		
	Q 661	DTA114EKA-X	DIGITAL.TR		
	Q 701	DTC114EKA-X	TRANSISTOR		
	Q 731	2SC2412K/R/-X	TRANSISTOR		
	Q 732	2SC2412K/R/-X	TRANSISTOR		
	Q 791	2SB1197K/QR/-X	TRANSISTOR		
	Q 793	DTC114EKA-X	TRANSISTOR		
	Q 901	2SA1706/ST/-T	TRANSISTOR		
	Q 902	2SC2412K/R/-X	TRANSISTOR		
	Q 903	2SA1037AK/RS/-X	CHIP TR.C.M		
	Q 912	2SA1706/ST/-T	TRANSISTOR		
	R 101	NRSA02J-392X	MG RESISTOR	3.9K 5% 1/10W	
	R 102	NRSA02J-432X	RES. C.M	4.3K 5% 1/10W	
	R 151	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 152	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 153	NRSA02J-333X	MG RESISTOR	33K 5% 1/10W	
	R 154	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 155	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 156	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 157	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 201	NRSA02J-392X	MG RESISTOR	3.9K 5% 1/10W	
	R 202	NRSA02J-432X	RES. C.M	4.3K 5% 1/10W	
	R 251	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 252	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 253	NRSA02J-333X	MG RESISTOR	33K 5% 1/10W	
	R 254	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 255	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 256	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 257	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 301	NRSA02J-183X	MG RESISTOR	18K 5% 1/10W	
	R 302	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 303	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 304	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 307	NRSA02J-273X	MG RESISTOR	27K 5% 1/10W	
	R 308	NRSA02J-273X	MG RESISTOR	27K 5% 1/10W	
	R 321	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 322	NRSA02J-181X	MG RESISTOR	180 5% 1/10W	
	R 323	NRSA02J-472X	MG RESISTOR	4.7K 5% 1/10W	
	R 333	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 334	NRSA02J-101X	MG RESISTOR	100 5% 1/10W	
	R 336	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 401	NRSA02J-183X	MG RESISTOR	18K 5% 1/10W	
	R 402	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 403	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 404	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 407	NRSA02J-273X	MG RESISTOR	27K 5% 1/10W	
	R 408	NRSA02J-273X	MG RESISTOR	27K 5% 1/10W	
	R 433	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 434	NRSA02J-101X	MG RESISTOR	100 5% 1/10W	
	R 436	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 501	NRSA02J-220X	MG RESISTOR	22 5% 1/10W	
	R 502	NRSA02J-220X	MG RESISTOR	22 5% 1/10W	
	R 503	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 504	NRSA02J-392X	MG RESISTOR	3.9K 5% 1/10W	
	R 505	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 506	NRSA02J-104X	MG RESISTOR	100K 5% 1/10W	
	R 507	NRSA02J-332X	MG RESISTOR	3.3K 5% 1/10W	
	R 508	NRSA02J-104X	MG RESISTOR	100K 5% 1/10W	
	R 509	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 510	NRSA02J-154X	MG RESISTOR	150K 5% 1/10W	
	R 511	NRSA02J-274X	MG RESISTOR	270K 5% 1/10W	
	R 512	NRSA02J-563X	MG RESISTOR	56K 5% 1/10W	
	R 513	NRSA02J-563X	MG RESISTOR	56K 5% 1/10W	
	R 514	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 515	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 516	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 517	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 541	NRSA02J-821X	MG RESISTOR	820 5% 1/10W	
	R 542	NRSA02J-562X	MG RESISTOR	5.6K 5% 1/10W	
	R 543	NRSA02J-203X	MG RESISTOR	20K 5% 1/10W	
	R 544	NRSA02J-242X	RES. C.M	2.4K 5% 1/10W	
	R 545	NRSA02J-822X	MG RESISTOR	8.2K 5% 1/10W	
	R 546	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 547	NRSA02J-124X	MG RESISTOR	120K 5% 1/10W	
	R 548	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 549	NRS181J-2R2X	MG RESISTOR	2.2 5% 1/8W	
	R 550	NRS181J-2R2X	MG RESISTOR	2.2 5% 1/8W	
	R 560	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 561	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 562	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 563	NRS181J-102X	MG RESISTOR	1.0K 5% 1/8W	
	R 564	NRS181J-102X	MG RESISTOR	1.0K 5% 1/8W	
	R 567	NRS181J-102X	MG RESISTOR	1.0K 5% 1/8W	
	R 568	NRS181J-102X	MG RESISTOR	1.0K 5% 1/8W	
	R 569	NRS181J-102X	MG RESISTOR	1.0K 5% 1/8W	
	R 570	NRS181J-102X	MG RESISTOR	1.0K 5% 1/8W	
	R 571	NRSA02J-683X	MG RESISTOR	68K 5% 1/10W	
	R 572	NRSA02J-105X	MG RESISTOR	1.0M 5% 1/10W	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 573	NRSA02J-124X	MG RESISTOR	120K 5% 1/10W	
	R 574	NRSA02J-331X	MG RESISTOR	330 5% 1/10W	
	R 601	NRS181J-103X	MG RESISTOR	10K 5% 1/8W	
	R 603	NRSA02J-101X	MG RESISTOR	100 5% 1/10W	
	R 604	NRSA02J-101X	MG RESISTOR	100 5% 1/10W	
	R 605	NRSA02J-101X	MG RESISTOR	100 5% 1/10W	
	R 609	NRS181J-103X	MG RESISTOR	10K 5% 1/8W	
	R 610	NRSA02J-104X	MG RESISTOR	100K 5% 1/10W	
	R 611	NRSA02J-332X	MG RESISTOR	3.3K 5% 1/10W	
	R 612	NRSA02J-332X	MG RESISTOR	3.3K 5% 1/10W	
	R 613	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 614	NRS181J-473X	MG RESISTOR	47K 5% 1/8W	
	R 615	NRS181J-473X	MG RESISTOR	47K 5% 1/8W	
	R 616	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 622	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 623	NRS181J-473X	MG RESISTOR	47K 5% 1/8W	
	R 625	NRS181J-473X	MG RESISTOR	47K 5% 1/8W	
	R 626	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 627	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 628	NRSA02J-472X	MG RESISTOR	4.7K 5% 1/10W	
	R 629	NRS181J-473X	MG RESISTOR	47K 5% 1/8W	
	R 630	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 631	NRSA02J-472X	MG RESISTOR	4.7K 5% 1/10W	
	R 632	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 633	NRSA02J-472X	MG RESISTOR	4.7K 5% 1/10W	
	R 634	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 635	NRS181J-472X	MG RESISTOR	4.7K 5% 1/8W	
	R 636	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 642	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 661	NRSA02J-471X	MG RESISTOR	470 5% 1/10W	
	R 662	NRSA02J-471X	MG RESISTOR	470 5% 1/10W	
	R 701	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 703	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 705	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	
	R 708	NRSA02J-155X	MG RESISTOR	1.5M 5% 1/10W	
	R 731	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	
	R 732	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 733	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	
	R 734	NRS181J-471X	MG RESISTOR	470 5% 1/8W	
	R 791	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	
	R 792	NRS181J-102X	MG RESISTOR	1.0K 5% 1/8W	
	R 795	NRSA02J-150X	MG RESISTOR	15 5% 1/10W	
	R 796	NRSA02J-150X	MG RESISTOR	15 5% 1/10W	
	R 798	NRSA02J-105X	MG RESISTOR	1.0M 5% 1/10W	
	R 902	QRZ0125-472X	C RESISTOR	4.7K 1/1W	
	R 903	NRSA02J-202X	MG RESISTOR	2.0K 5% 1/10W	
	R 904	NRSA02J-104X	MG RESISTOR	100K 5% 1/10W	
	R 905	NRSA02J-472X	MG RESISTOR	4.7K 5% 1/10W	
	R 906	NRSA02J-472X	MG RESISTOR	4.7K 5% 1/10W	
	R 907	NRSA02J-333X	MG RESISTOR	33K 5% 1/10W	
	R 908	NRSA02J-683X	MG RESISTOR	68K 5% 1/10W	
	R 909	NRSA02J-273X	MG RESISTOR	27K 5% 1/10W	
	R 910	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 911	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 912	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	

■ Electrical Parts List (Front P.C.B)

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 914	NRS181J-4R7X	MG RESISTOR	4.7 5% 1/8W	
	R 915	NRS181J-2R2X	MG RESISTOR	2.2 5% 1/8W	
	R 916	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 917	NRS181J-333X	MG RESISTOR	33K 5% 1/8W	
	R 918	NRSA02J-472X	MG RESISTOR	4.7K 5% 1/10W	
	TU701	QAU0102-001	TUNER PACK		
	X 561	QAX0413-001Z	CRYSTAL		
	X 601	QAX0406-001Z	CRYSTAL		

BLOCK NO. 02

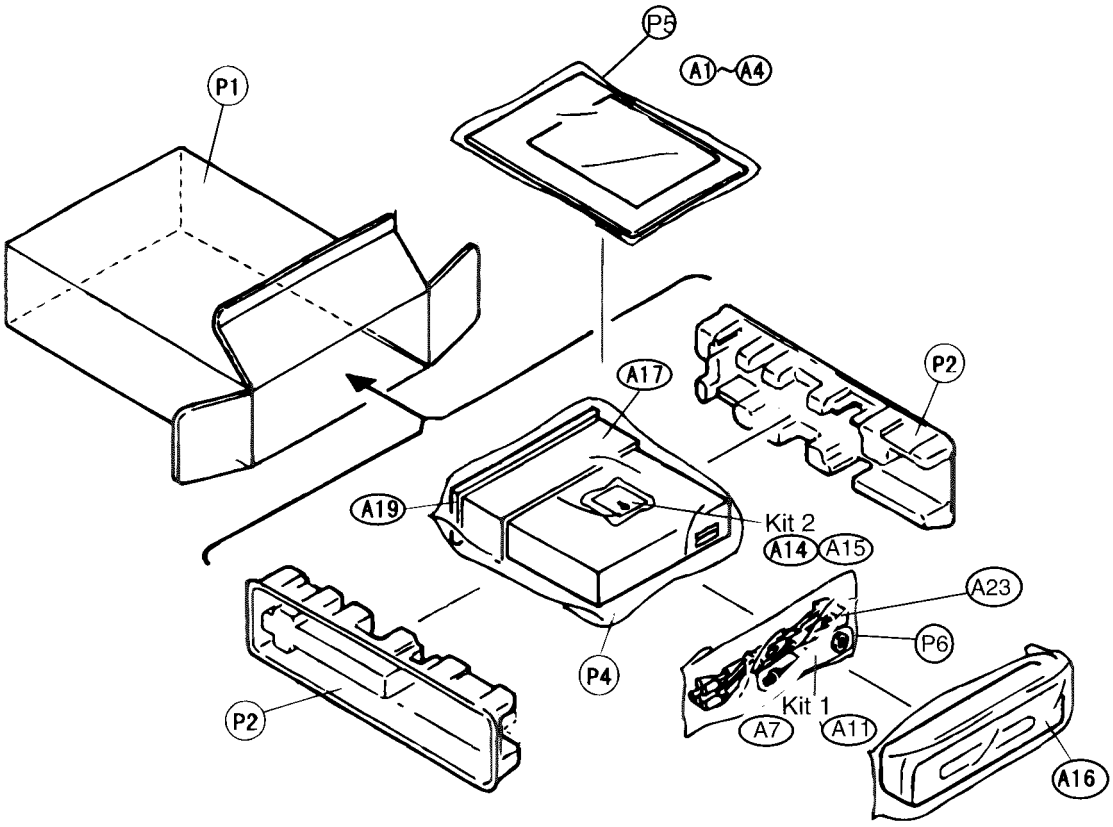
⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 951	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 952	NCS21HJ-681X	C CAPACITOR	680PF 5% 50V	
	C 953	NBE40JM-106X	TS E CAPACITOR		
	CJ601	VMC0335-001	CONNECTOR		
	D 951	SML-210LT/LM/-X	LED	"POWER LED"	
	D 952	SML-210FT/JKL/W	LED		
	D 953	SML-210FT/JKL/W	LED		
	D 954	SML-210FT/JKL/W	LED		
	D 955	SML-210FT/JKL/W	LED		
	D 956	SML-210FT/JKL/W	LED		
	D 957	SML-210FT/JKL/W	LED		
	D 958	SML-210FT/JKL/W	LED		
	D 959	SML-210FT/JKL/W	LED		
	D 960	SML-210FT/JKL/W	LED		
	D 961	SML-210FT/JKL/W	LED		
	D 962	SML-210FT/JKL/W	LED		
	D 963	SML-210FT/JKL/W	LED		
	D 964	SML-210FT/JKL/W	LED		
	D 965	SML-210FT/JKL/W	LED		
	D 966	SML-210FT/JKL/W	LED		
	D 967	SML-210FT/JKL/W	LED		
	D 968	SML-210FT/JKL/W	LED		
	D 969	SML-210FT/JKL/W	LED		
	D 970	SML-210FT/JKL/W	LED		
	D 971	SML-210FT/JKL/W	LED		
	D 972	SML-210FT/JKL/W	LED		
	D 977	MA3047/M/-X	ZENER DIODE		
	D 978	MA152WK-X	SI DIODE		
	IC951	LC75823E	IC		
	PL952	QLL0033-001	LAMP		
	PL954	QLL0033-001	LAMP		
	R 930	NRSA02J-681X	MG RESISTOR	680 5% 1/10W	
	R 931	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 932	NRSA02J-681X	MG RESISTOR	680 5% 1/10W	
	R 933	NRSA02J-911X	MG RESISTOR	910 5% 1/10W	
	R 934	NRSA02J-122X	MG RESISTOR	1.2K 5% 1/10W	
	R 935	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	
	R 936	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 937	NRSA02J-681X	MG RESISTOR	680 5% 1/10W	
	R 938	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 939	NRSA02J-681X	MG RESISTOR	680 5% 1/10W	
	R 940	NRSA02J-911X	MG RESISTOR	910 5% 1/10W	
	R 941	NRSA02J-122X	MG RESISTOR	1.2K 5% 1/10W	
	R 942	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	
	R 943	NRSA02J-681X	MG RESISTOR	680 5% 1/10W	
	R 944	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 945	NRSA02J-681X	MG RESISTOR	680 5% 1/10W	
	R 946	NRSA02J-911X	MG RESISTOR	910 5% 1/10W	
	R 947	NRSA02J-122X	MG RESISTOR	1.2K 5% 1/10W	
	R 948	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	
	R 949	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 950	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 951	NRSA02J-513X	MG RESISTOR	51K 5% 1/10W	
	R 952	NRSA02J-154X	MG RESISTOR	150K 5% 1/10W	
	R 953	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	

BLOCK NO. 02□□□□□

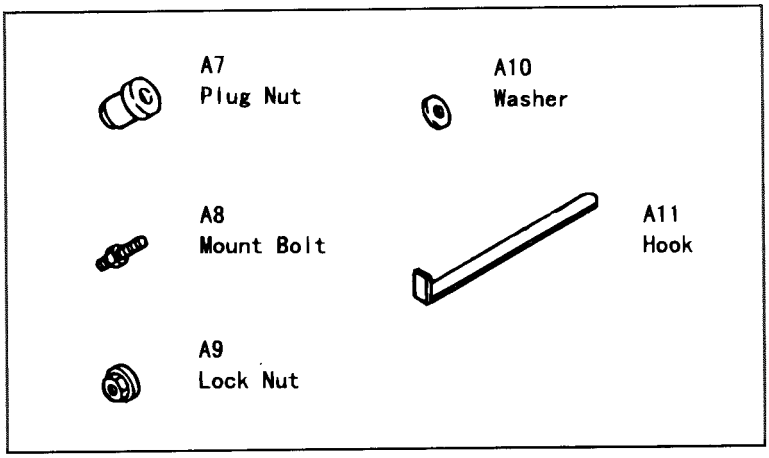
⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 954	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	
	R 955	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	
	R 956	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	
	R 970	NRSA02J-821X	MG RESISTOR	820 5% 1/10W	
	R 971	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 972	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 973	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 974	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 975	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 976	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 977	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 978	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 979	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 980	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 981	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 982	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 983	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	R 984	NRSA02J-511X	MG RESISTOR	510 5% 1/10W	
	S 951	NSW0039-001X	TACT SW	"6"	
	S 952	NSW0039-001X	TACT SW	"5"	
	S 953	NSW0039-001X	TACT SW	"CD"	
	S 954	NSW0039-001X	TACT SW	"FM"	
	S 955	NSW0039-001X	TACT SW	"AM"	
	S 956	NSW0066-001X	TACT SW	"SOUND"	
	S 957	NSW0066-001X	TACT SW	"LOUD"	
	S 958	NSW0066-001X	TACT SW	"DISPLAY"	
	S 959	NSW0039-001X	TACT SW	"SELECT"	
	S 960	NSW0039-001X	TACT SW	"1"	
	S 961	NSW0039-001X	TACT SW	"2"	
	S 962	NSW0039-001X	TACT SW	"3"	
	S 963	NSW0039-001X	TACT SW	"4"	
	S 964	NSW0066-001X	TACT SW	"EJECT"	
	S 965	NSW0039-001X	TACT SW	"F.SKIP/UP"	
	S 966	NSW0039-001X	TACT SW	"POWER"	
	S 967	NSW0039-001X	TACT SW	"VOL UP"	
	S 968	NSW0039-001X	TACT SW	"VOL DOWN"	
	S 969	NSW0066-001X	TACT SW	"MO/RND"	
	S 970	NSW0066-001X	TACT SW	"REPEAT"	
	S 971	NSW0066-001X	TACT SW	"SCAN"	
	S 972	NSW0039-001X	TACT SW	"B.SKIP/DOWN"	

Packing Meterials and Accessories List

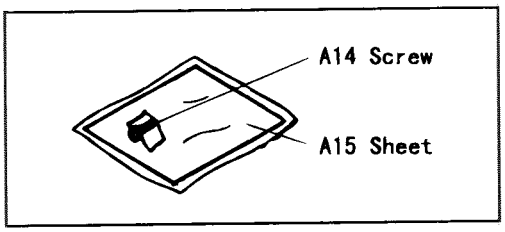
Block No. M3MM
Block No. M4MM



SCREW KIT 1



SCREW KIT 2



■ Packing List

BLOCK NO. M3MM□□□

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	P 1	FSPE3001-103	CARTON		1		
	P 2	**FSPH1014-001**	PAPER CUSHION		2		
	P 4	VPE3005-064	POLY BAG	SET(260X440X0.0	1		
	P 5	QPA01703505P	POLY BAG	INST.BOOK	1		
	P 6	QPA00801205	POLY BAG	CORD	1		

■ Accessories List

BLOCK NO. M4MM□□□

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A 1	FSUN3069-631	INSTALL BOOK		1		
	A 2	FSUN3069-T631	INSTALL MANUAL		1		
	A 3	BT-51009-3	WARRANTY CARD		1		
	A 4	BT-51015-1	SVC CENTER LIST		1		
	A 7	VKZ4027-202	PLUG NUT		1		
	A 8	VKH4871-001SS	MOUNT BOLT		1		
	A 9	VKZ4328-001	LOCK NUT		1		
	A 10	WNS5000Z	WASHER		1		
	A 11	FSKL4010-002	HOOK		2		
	A 14	VKZ4777-001	MINI SCREW		1		
	A 15	FSYA4001-001	SHEET		1		
	A 16	FSJB3001-00A	HARD CASE		1		
	A 17	FSKM2004-001	MOUNTING SLEEVE		1		
	A 19	FSJD2019-002	TRIM PLATE		1		
	A 23	QAM0013-005	CAR CABLE		1		
	KIT 1	KDGS717K-SCREW1	SCREW KIT	A7-A11	1		
	KIT 2	KDGS727J-SCREW2	SCREW KIT	A14.15	1		

KD-S640

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(No.49487)

Printed in Japan
9811(O)